

PLANNER AND PLANNING COMMISSIONER PERCEPTIONS
CONCERNING THE IMPORTANCE
OF SITE DESIGN ISSUES IN DECISIONMAKING
IN METROPOLITAN DENVER AND KANSAS CITY

BY

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CHAPTER I

INTRODUCTION

"The contemporary American city has, in fact, been designed not by a master plan but by the forces of the real estate market" (1).

"More attention needs to be paid, on one hand, to educating appointed and elected decision makers on the types of impacts and their interpretation and on the other hand, to educating the technicians to improve the clarity of language and formats used to present impact information to the decision makers. There is no point in improving the scope and quality of information if it will not be used-- yet that seems to be a major source of frustration for many planning agencies" (2).

Underlying the discussion about the zoning of land uses in an increasingly complex planning process is the question; How does the physical structure or design of those uses contribute to the resulting quality of life and image of the rural and urban environment? More importantly, how do the citizens of the community and their agents in the planning process perceive the importance of design? In the contemporary world, as the two quotes at the beginning of this paper suggest, there is room for improved communication between what type of environment the public expects to live in and what the developer wants to create.

This physical building of a community occurs on a

project by project basis and within the political context of decision making. The public's interest and expectations between physical growth and quality of life is served through the project approval process. Site design review is an integral part of that process.

The implementation of the design review process and the enforcement of guidelines and standards readily appears in regions of rapid land development (3). Here, today's issue-oriented political process is continually defining detailed site design regulations as valid public interests. Numerous examples of city ordinances and state laws may be found which regulate site design (4,5,6). Though site design review processes can occur at any government level, they are most effective at local levels where criteria for review may be applied to the uniqueness and character of an individual city or neighborhood (7).

Some of these ordinances target the ecological impacts of a project, or the aesthetic concerns of a community. Other ordinances address, in a primary way, the economic aspects of a project such as mitigating off-site impacts while others specify site amenities that must be included by the developer; requirements that lessen the motive to cut quality for the sake of profit (8). Protecting these public interests is delegated by elected officials to planners and planning commissions.

While planners are held accountable for protecting public interests as hired professionals, planning commissions are composed of responsible laypersons who are appointed and act in a purely advisory capacity. Because commission members are selected to represent a cross section of the community, commissioner's opinions about community direction, goals and specific issues such as the elements of site design reflect the overall community attitude (9).

The goals and responsibilities of planners and commissioners as a part of this political process has been outlined in several American Planning Association (APA) sponsored publications as

"preventing the disruption of environmental quality through excessive earthwork, removal of vegetation, despoilation of streams, lakes, plant, fish and wildlife habitats. Also the prevention of overburdening existing services, such as roads, utilities, and generally any development action which threatens the public health and safety and welfare (10,11)." (This may include the aesthetic quality of the city.)

A problem arises when cities enact ordinances regulating site design for the reasons listed above, but ordinances are either considerably weakened or not enforced during the project approval process. This could be due to the design issue's waning importance in the community or a lack of understanding of the issue being regulated. In some instances, elected governing bodies override planning

commission recommendations. One way to gauge whether a particular site design issue is important is to survey planners and planning commissioners who enforce regulations through their recommendations for project approval.

The problem

Are the issues of site design important enough for planners and planning commissioners to perceive a need for specialized site design training? If there is a perceived need, would a training course need to be tailored to the needs of individual regions or is there a general consensus on the content of that training. A survey of planning commissioners, by Browne, for the American Planning Association reveals that there exists a high level of interest in specialized training, but the study does not reveal any insight into the subject matter or content of that training (12). Browne's survey also reveals that over 1/2 of the commissioners do not receive any kind of training before they start their term as planning commissioners.

With regards to site design a similar educational dilemma exists for the planner. Since the separation of the discipline of planning from the discipline of landscape architecture, physical design issues have taken a back seat

to broad scale policy writing, demographics, and legal issues in many planning curriculums. "While these are admirable advances, planners have strayed further and further from physical design, shunning it like a disease, a moral weakness" (13). This has occurred despite attempts to define a core planning curriculum which stresses interdisciplinary content. The Association of Collegiate Schools of Planning also does not require, from planning schools, any design or design assessment courses for accreditation (14). Recent planning graduates, however, frequently find themselves assessing site development plans or giving technical design advice to planning commissioners and elected officials on their first job (15).

Need for the Study

Because 88% of the commissions review zoning changes and site plans, with many commissions spending well over 50% of their time in project review, special training in site design could be useful to planners and planning commissioners (16,17). There are several possible reasons for training in site design issues.

First, specialized training could expedite the process by increasing the proficiency and understanding of the reviewed design elements. This is important due to rapid

turnover and a trend towards increased numbers of non-technically trained commission members, who are not versed in land development and finance (18). This is especially important for new commissioners. The training is more critical when flexible land use and zoning devices such as performance zones, planned unit developments (PUD's), and floating zones are used as land use regulation tools.

Second, delay in the approval process is a common but as yet generally unsubstantiated complaint from many developers. Any expediting of the approval process would promote better relations between local government and land developers. Developers from outside the community would also understand what is expected of them during the approval process and what concerns are important to the general public.

Third, the time saved during the review, could be better utilized assessing long range plans, policies, and special programs, such as housing assistance, capital improvements, economic development and comprehensive plan updates. The lack of time to spend on these aspects of planning is a frequent complaint of many planners and commissioners (19).

Lastly, in areas where the design review process is quite sophisticated, the basic criteria for assessment

could be more consistently applied. Fairness in the application of design guidelines to all projects also improves public relations with developers and speeds up the process. Consistency also improves the image and legitimacy of planners, planning commissioners, and the planning process.

Because of the economics and user demand for rapid and large scale land development, most design review processes develop near urban centers. One concern of some cities near these growth centers has been continuing education for planners and planning commissioners. A limited number of requests for seminars in site design assessment for planners and planning commissioners have been made to the Department of Landscape Architecture at Kansas State University from the metropolitan Kansas City Area (20, 21). These requests suggest a recognized need, but not the specific content; nor do two requests define the extent of the need and the resources the school should apply towards developing a seminar in this subject area. In one request, visualization of site design issues was one particularly important aspect wanted in a seminar.

Importance to Landscape Architecture

There is also a need to establish the general trends and scope of design priorities; how and why they shift, and how they relate to planning and landscape architectural practices. Knowing what design issues are currently most important to communities helps the professional landscape architect integrate and relate what design priorities align with those of a specific community or region and the design problem's requirements. Depending on the landscape architects form of professional practice, this knowlege could increase the professional's effectiveness in design development, government approval of the project, and possibly uplifting the community's design expectations.

Robert Gutman suggests landscape architects are to sensitize the groups who most influence environmental decision-making as to the importance of environmental quality (22). If, as Albert Fein reports, 84% of industrialists, developers, government officials and citizenry, believe site design to be the highest rated service provided by landscape architects, then, in the opinion of these groups, what are the important site design issues that contribute to environmental quality (23). Sullivan also reports that 46% of the communication between public officials and landscape architects is about project design, but he does not clarify what issues are discussed

nor which issues are most important (24). The question still exists whether the issues discussed are physical design issues and are they related to ecology, cultural expectations, aesthetics, legalities, or the economics of public costs and benefits?

Purpose of the Study

This research, as a pilot study, will attempt to show if there is a difference between the perceptions of planners and planning commissioners in 2 different geographic regions concerning the importance of site design issues, within the categories of vehicular circulation, pedestrian circulation, screening, earthwork and drainage, location of utilities, lighting, open space, site to building relationships, and off-site impacts. This researcher feels there will be no difference in the level of importance of each issue comparing Kansas communities to Colorado communities. This researcher also feels will be no difference between the two regions in the perceived need for more information on each issue. This may indicate that the two requests are not isolated instances of need but a more generalized and meaningful response by commissions that are outgrowing their vague advisory roles. The lack of differences and a positive response to the need

for more information could indicate that seminar development would not have to tailored to individual municipalities on an "as per request basis."

Definitions of terms

For the purposes of this study the elements of site design were restricted to specific groups that are frequently encountered. These were extracted from model ordinances recommended by the American Planning Association, site plan checklists from these ordinances and books on site planning standards (25,26,27,28,29). No attempt was made to define each element to the respondent.

Development - The term development has been clarified in the text as referring to either approval process or the actual project.

Research Questions

1. Is there a significant difference between respondents in Kansas/Missouri as compared to respondents in Colorado about the importance of specific site design issues?
2. Is there a significant difference in the level of importance of each category, defined as vehicular circulation, pedestrian circulation, screening, earthwork and drainage, utilities, lighting, open space, site to building relationships, and off-site impacts?

3. Is there a significant difference between Kansas/Missouri respondents as compared to Colorado respondents, concerning the perceived need for more information for each specific design issue?
4.
 - a. Is there a significant difference between Kansas/Missouri and Colorado respondents on whether site design was frequently or always a topic of discussion at planning meetings?
 - b. Is there a relationship between the importance rating of the design issue and whether it was frequently to always a topic of discussion at planning meetings.
5. Is there a relationship between the populations of the cities and the importance of the categories of site design issues?
The population groups considered are
 - 1 -10,000
 - 10,001-20,000
 - 20,001-30,000
 - 30,001-40,000
 - above 40,000
6. For each main category of site design issues, is there difference between Kansas/Missouri and Colorado respondents in context preference for seminar information. The contexts being public costs and benefits, aesthetics, or ecology.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Historical Background

The roots of site design regulation extend back to the reform movement of the late 1800's and early 1900's. A large immigrant population, which began in the 1850's, had finally stressed the existing infrastructure of many cities to the limit. Social and cultural differences accompanying these waves of immigration compounded the problems of a deteriorating physical environment. Rapid growth to accommodate immigrant living quarters, work places in a booming industrializing society, and the commercial network to distribute goods and services, created a hodge podge of conflicting land uses at the core of many cities. Public exposure to the deteriorating quality of living conditions by authors like Sinclair Lewis and reformer-journalist Jacob Riis created the impetus for positive change.

In a landmark case *Welch vs. Swasey* 1909, the supreme court upheld the regulation of building heights to protect the clean air circulation in the city of New York, legitimizing the concept of regulation of private development rights for public benefit (30). This concept continued to evolve and in 1926 the supreme court case *The City of Euclid vs. Ambler Realty Co.* held a city's right to

segregate conflicting land uses. This established the precedence for today's zoning (31). Within these zones of land use, standards for block lengths and widths began to be applied; the beginnings of design guidelines.

The depression was followed by a period of general prosperity and tolerance of land use regulation. Zoning was the tool for keeping nuisance land uses separated. Land use concerns were simpler and less complicated than today. Zoning and planning commissions became commonplace. Because the idea of a planning commission was born in an era of corruption in local government, it was given "blue ribbon" status indicating its importance in the community even though its role was purely advisory in nature and power quite limited (32). Nevertheless, it was important to keep political bosses from controlling this citizens advisory council. The planning commission's role does not appear to have changed much since its inception but the commissions' power through its recommendations, and procedures continues to gain more respect and public support. It has been suggested that this is due to the non-political nature of the commission, and its service to the community as an open public forum but government agency can be completely separated from politics (33). The commission's role is increasingly important due to the dynamics of the changing social, cultural and technological

environment that we live in today.

Recent technological advances not only created more complex problems for land use planning but also began to solve some problems which previously did not allow incompatible land uses to co-exist. Traditional zoning rules were not flexible enough to handle these types of exceptions even if they were appropriate.

Zonings' inflexibility became more apparent during the most recent Environmental Movement which is recognized as the period from 1955 to 1980 (34,35). Public expectations shifted towards ecological interests which demanded that developers be responsive to and responsible for public interests that were growing in content and sophistication. For example, in *Golden vs. Planning Board of Ramapo*, "the New York supreme Court upheld a city ordinance that required the issuance of a project development permit contingent on meeting performance standards rated on a point system relative to utilities, drainage facilities, parks, and road access" (36). Regulations like this not only altered the process by which a project would be submitted and approved, but also the content of very specific design guidelines used to judge the quality of the result.

Today, the content of design guidelines are very important because new development is proceeding at an

increasingly rapid rate and on larger scales. At times, hundreds and even thousands of acres may be involved in one project. Additionally, a project might consist of developing a mixture of commercial and residential land uses over an extended period of time (Planned Unit Development "PUD's) and may involve ecologically sensitive sites (37).

Continuing education for public officials who deal with development issues has garnered support from extension agencies, several authors and professional societies such as the American Planning Association. Philip Schaenman author of "Using an Impact Measurement System to evaluate Land Development" comments;

"More attention needs to be paid, on one hand, to educating appointed and elected decision makers on the types of impacts and their interpretation and on the other hand, to educating the technicians to improve the clarity of language and formats used to present impact information to the decision makers. Many decision makers serve only part time, and are not technically trained. There is no point in improving the scope and quality of information if it will not be used- yet that seems to be a major source of frustration for many planning agencies (38).

Supporting this need to expand the use of information, extension programs have been developed in other parts of the United States to acquaint public officials with techniques for assessing land development impacts. Cornell University in New York State has developed an extension program that specifically addresses a "hands on" approach

to using remote sensing techniques in conjunction with topographic maps, drainage pattern studies and land use inventory maps so that physical problems in the landscape can be identified before project development is permitted. James Ashton, developer of the Cornell Program with 12 years experience as a specialist in extension program development, believes "these types of training courses are needed more now than ever" (39).

Assumptions of this study.

It is assumed that the subject groups have had some exposure to site design terminology through developer presentations of project plans typical to the planning process.

It is also assumed that planners and commissioners have the capability of understanding site design issues. Rappoport notes that a very small percentage of the construction of the world's buildings and landscape have been done by professionals and, therefore laypeople bring a basic level of understanding of site design to their planning job (40). This study also recognizes that the physical nature of building must be integrated with legal, political, economic, ecologic, social and cultural factors. It would be absurd to neglect this interconnectiveness.

CHAPTER III

METHODOLOGY

Pretest

A set of questions was developed to test planner's and commissioner's perceptions about the importance of site design issues in their city. Demographic questions which might influence the responses such as respondents' years of experience at their present job, past experience in the planning field, whether their community had what they perceived to be a design review process, and whether site design issues were frequent topics of discussion at planning meetings, were added to a survey form.

A pretest using the planning commissions of Hutchinson and Junction City, Kansas, was made. Minor changes in the questionnaire format were made, and despite recommendations by survey researchers not to use a matrix rating question, it was retained (41,42). Because of the inconsistent return rate, 78% from Hutchinson, Kansas and 9% from Junction City, Kansas, it was decided that a questionnaire would have to be sent to all members of the sample groups rather than a random sampling.

Sample Procedure

Sample Groups. A list of planners and planning

commissioners was compiled by telephoning each city within a 20 mile radius of the government center of Kansas City, Kansas/Missouri and Denver, Colorado. This assured a current list of names and addresses of planners and commissioners. Several cities included their consultant if they did not have a planner on staff; however, there was an insufficient number of consultants to make this group's answers significant. Of the 40 communities called, only 25 listed a planner. A few cities never did respond with a listing and were omitted from the study sample. A list of the cities their populations and whether they had an on-staff planner is listed in appendix D.

Sample groups were limited to planners and planning commissioners in two major metropolitan areas; Kansas City, Kansas/Missouri, and Denver, Colorado. A finalized questionnaire was mailed to each planner and commissioner in cities who submitted names to the listing. (See Appendix A for planner questionnaire; Appendix B for commissioner questionnaire).

Planners and planning commissioners were selected as the sample groups to survey because

1. Planners are often the initial contact person for developers.
2. Planners are technical advisors for planning commissioners and elected officials.

3. Planning commissions, despite their traditional advisory role, are an increasingly important component in city planning. Particularly the economic aspects of development (43,44). The Commission's recommendations are frequently upheld by the elected governing body such as the city commission.
4. Planning commissioners, as laypersons, more closely reflect the concerns of the general public about what is important in community land use regulation.

Sample Area. The sample areas were limited to 2 metropolitan areas of Kansas City, Kansas/Missouri and Denver, Colorado (See Figs. 3.1 and 3.2). The reasons for limiting the study area to these metropolitan areas were

1. Both of these metropolitan areas have undergone rapid land development within the last 10 years, a prime indicator that design review procedures and criteria may have been implemented.
2. Both metro areas are located in sufficiently different geographic regions and, therefore, may represent different socio-cultural attitudes towards design and land use regulation.
3. Both metro areas are composed of diverse local municipalities with different capabilities for dealing with design issues.
4. These municipalities exhibit a cohesive metropolitan property which means they tend to share some common problems and concerns due to their connective nature and proximity to each other.
5. With the purpose and context of this research as a pilot study for Kansas State University, the selected areas are within the scope of influence of the university.



Denver Colorado Study Area

Fig. 3.1



Kansas City Ks./Mo. Study Area

Fig. 3.2

Survey Instrument

Finalized questionnaires were printed on 8 1/2 by 11 colored paper; buff for planners and peach for commissioners. They were mailed in 10" x 4 3/4" envelopes with a postage-paid (business reply envelope) enclosed for the respondent's convenience. Questionnaires were addressed with gum labels generated from a computerized data base containing the list of planners and planning commissioners. A reminder post card (see appendix D) was sent 10 days after the initial mailing.

CHAPTER IV

DATA ANALYSIS AND FINDINGS

The data from completed respondent questionnaires was stored on a computerized data base and read into a NAS 6630 computer, where a SAS program; version 82.3 developed by SAS Institute Inc. was used for statistical analysis.

Findings for Planners

The return of 14 of 25 or 56% was received from planner surveys. There were insufficient responses from planners to do a comparison of planners verses planning commissioners. However, it was noted that the site design issues were generally rated higher in importance by the planner group than the commissioners. Several planner respondents indicated that all site design issues rated a five (5), as though it was assumed that the issues were all equally very important. This could be attributed to the fact that 8 of the 14 responding planners indicated they had at least one general course in design. The remaining 6 planners indicated they had no training in design or design assessment. Twelve (12) of the 14 planners felt that most of their training was from on the job experience.

Regarding the sufficiency of trained staff to conduct a site design review, survey questions 10,11 (See Appendix

A), one city architect/planner, commented that "it wasn't a matter of the number of staff members, but the time allowed to conduct a proper review".

PLANNER RESPONSE TO SUFFICIENCY OF STAFF FOR REVIEWS

ADEQUATE STAFF		NO.	NO.
YES	NO	OF STAFF	OF RESPONSES
11	3	0	4
		1	4
		2	2
		3	2
		7	1
		12	1

* The response of 12 staff included staff from affected city offices such as surveyor, engineering, and fire chief.

Some planners and several professionals who did serve on planning commissions noted that they did not feel it was necessary for planning commissions to have an understanding of this type of knowledge. Yet their comments on what the commissioners should be doing, especially with regard to design policy development and design compatibility with land use capability, reflected a need for more than the basic understanding of design than that which is brought to the job. Both commissioner and planners had specific comments which related design issues to planning, present training methods, continuing education and the present state of the art of design review. These comments appear in appendix E.

Findings for Commissioners

From the 225 surveys sent to planning commissioners, 76 were completed for a 36% return rate. One survey was returned blank with an attached note that stated that the participant did not feel qualified to answer the survey because they had served on the commission only nine months. There may have been other respondents who did not return the survey for the same reasons, since

- 26% had less than 1 year experience in present job.
- 20% had less than 1 year prior experience in planning.
- 50% of all the respondents had only 2.5 years experience in their present position.
- 25% of all the respondents had 1 year or less of past experience in planning.

COMMISSIONER RESPONSES TO GENERAL SITE DESIGN QUESTIONS

Planning Commissioner responses indicated

- 89% Do have a site design review process.
- 89% Do NOT have any formal site design training.
- 88% Do NOT have any site design assessment training.
- 92% Of site design training was on-the-job training

- 66% Have NO Architect on the Commission.
- 93% Have NO Landscape Architect on the Commission.

- 69% Acknowledge that site design issues are frequently a topic of discussion at planning meetings.

- 72% Have NOT used a consultant for site design issues.

The most frequent responses to how site design issues

of concern were passed on to new commissioners varied from "they aren't," and "by osmosis," to "through the city ordinances," and "by special planning staff and commissioner meetings." By referring to appendix E, most of the comments listed under training indicated that if design training occurred, it was only when a site design issue arose. The fact that 66% of the commissioners responded that they had no architect and 93 percent said they had no landscape architect serving on their commission could reflect the relative populations of these professions or an unwillingness to participate in public service or public practice.

Fifty-six percent (56%) of the commissioners responded "frequently" and 13% responded "always" to the question on site design issues as topics of commission meetings, indicating that design issues are generally important in the communities surveyed. The response rate was slightly lower for site design issues as topics of discussion with the general public.

Seventy-two percent (72%) of the respondents had not used a consultant for site design because many respondents indicated that local economic conditions excluded their use, and budget cuts frequently influenced planning offices first. This may indicate in some cities

1. that the city may be muddling through the site design review process.

2. that a detailed process is presently not important.
3. that there has been a shift in attitude towards regulating site design.
4. that the staff is handling the content and administration of site design review at a satisfactory level.

Number four is somewhat questionable for, while some commissioner opinions express satisfaction with planner's administrative performance, there is dissatisfaction with planners giving developers alternatives to solving design problems specifically related to their city (45). One may also find frequent literature references on the poor visual quality, overuse of asphalt and concrete surfaces and the problem of urban sprawl ;in many US cities. However, these site design issues may be divorced from site plan regulations as aesthetic concerns, a legal gray area that does not promote design regulation because of the politics of enforcing aesthetic regulations.

Browne reports in the American Planning Association survey some important general demographic data on planning commissions (Refer to this report for more specific details). It is interesting to note, that planning commissions are generally composed of white males, the majority of which, are over 40 years old; but in the period from 1965 to 1979, a 14% increase in the number of women commissioners was recorded.

Findings for Combined Responses

Planner responses were merged with the commissioner data base for analysis based on the two different sample areas. A general frequency distribution of combined responses showed only a slight difference from Commissioner responses. Tables for statistical results using the combined data appear in Appendix F.

Because the majority of the reponses to this survey were from planning commissioners, there were no significant changes in the response frequencies when the data was combined. This was especially true for the general site design questions for which the responses indicated that

Cities were Urban in character.	83%
Cities did have a design review process	89%
Respondents did NOT have formal training in site design	82%
Respondents did NOT have training in site design assessment.	80%
Training was ON-THE-JOB training	90%

* (For a complete synopsis of statistics and percentages, see Tables F.1, F.2, F.3, F.4, F.5 of Appendix F).

Statistical analysis was not performed for the questions asking respondents for the discipline of their consultants and who was responsible, in their community, for training about site design issues. From the twenty eight percent (28%), who answered "yes" to having used a

consultant for site design problems, the following chart shows the disciplines used by these planning agencies.

CONSULTANT TYPES USED BY RESPONDENTS

11	planners
5	architects
3	engineers
2	landscape architects.

Additionally, most respondents were generally comfortable discussing site design issues with each of the professions who might approach the respondents about site design matters (See Tables F.3, and F.3a in Appendix F).

Ninety percent (90%) responded to having no landscape architect and 64% responded "no" to having an architect on the staff or the commission. These percentages are somewhat in compliance with Browne's 1979 survey which gives the occupations of commissioners. It seems appropriate that professionals serving on the staff or commission could promote the education of other members about site design issues, but this duty has fallen on a variety of public figures. The list on the following page shows the responses for job titles of the people responsible for education about site design issues and the site design review process. This might be one source of the inconsistency in the interpretation of site design criteria.

LIST OF RESPONSES FOR JOB TITLES OF
INDIVIDUALS RESPONSIBLE FOR EDUCATION ABOUT
SITE DESIGN ISSUES AND THE REVIEW PROCESS

Architect
Assistant Administrator
Assistant City Administrator
Chairman of Planning Commission
Chief of Plans Implementation
City Consultant
City Lawyer
City Manager
City Planner
Director of Planning
Community Development
Administrator
Planning and Zoning Director
Planning Staff
Planning Consultant
Zoning and Subdivision
Administrator

* 19 respondents did not specify any title

**Figure 4.3 List of Job Titles of Person
Responsible for Education About
Site Design Issues and Review Process**

Seventy-one percent of the respondents replied "frequently" or "always" regarding how frequently site design issues were topic of discussion at planning meetings and fifty-four percent indicated that city commissions were "somewhat responsive" or "very responsive" to planning commission and staff recommendations for adopting site design regulations. This indicates that the advisory body has a fair amount of influence concerning the initiation of site design regulations. In two instances, respondents noted that it was the city commission that wanted and initiated the site design regulations.

The majority, (64%), felt that continuing education in site design issues would improve their performance in their present job. Most of the respondents however, indicated that they could not spend much time or money for seminars. The most frequent response indicated 1 or 2 days would be the maximum time they could devote to learning a working knowledge of site design. The reasons more often given for such a low number of days was

1. Respondents could not take the time from their regular jobs to attend seminars. This was especially true for commissioners, who serve as volunteers.
2. Considering the present economic conditions, most cities did not encourage continuing education on such issues.
3. Cities would not or could not pay the expenses because of budget restriction.

These facts tend to discourage the use of the seminar as a means of delivering this type of information to these potential user groups. This would also influence the resource allocation for developing a means of delivery and the eventual marketability of that delivery mechanism. Because the requests for a seminar and the nature of site design assessment is a visual process, a visual means of delivery and the acceptance of that method by potential users should be studied further. (See recommendations for further study).

Research Question 1. Research question 1 asked if there was a significant difference between the ratings by Colorado and Kansas/Missouri respondents for each of the thirty-five site design issues.

1. The statistics indicated there was only one significant difference between the respondent groups ratings of the thirty-five site design issues. That issue was the utility "gas". While this difference was significant, the utilities category was not significantly different as outlined under research question 2. (Table 4.1 shows the mean scores, sorted in descending order, rating the importance of each issue for Denver and Kansas City).
2. Chi-square analysis was used first to determine whether there was a difference between the two respondent groups. Because the clustering of responses was within such a large table, 20% of the matrix contained 5 or less responses in each cell. This created a possibility for invalid results; therefore a t-test was used to assess the difference between sample groups.

TABLE : RATINGS OF ISSUES BASED ON MEAN SCORES (SORTED IN DESCENDING ORDER)

COLORADO	Mean Score	MISSOURI	Mean Score
1 Access to Site	4.57	1 Relating Building to Site	4.64
2 Relating Building to Site	4.53	2 Access to Site	4.64
3 Open Space Types	4.31	3 Understanding Drainage	4.55
4 Off Street Parking	4.30	4 Off Street Parking	4.44
5 Understanding Drainage	4.29	5 Relating to Existing Buildings	4.33
6 Vegetative Screening	4.22	6 Vegetative Screening	4.32
7 Relating to Existing Buildings	4.21	7 Building Height	4.31
8 Building Height	4.19	8 Open Space Types	4.24
9 Structural Screening	4.14	9 Open Space Placement	4.24
10 Placement of New Veg	4.12	10 Placement of New Veg	4.21
11 Open Space Placement	4.08	11 Visualizing Landform	4.17
12 Sightline Distances	4.08	12 Structural Screening	4.16
13 Earthwork -Visual Impact	4.04	13 Handicapped Access	4.11
14 Visualizing Landform	3.97	14 Existing Vegetation	4.10
15 Handicapped Access	3.91	15 Turning Radius	4.08
16 Slope Gradients	3.89	16 Sightline Distances	4.08
17 Turning Radius	3.89	17 Off Site Impacts	3.96
18 Off Site Impacts	3.84	18 Service Access	3.94
19 Functional Use Vegetation	3.81	19 Earthwork -Erosion	3.91
20 Existing Vegetation	3.81	20 Functional Use Vegetation	3.91
21 Earthwork -Design Grading	3.78	21 Earthwork -Visual Impact	3.86
22 Walkway Adequacy	3.75	22 Slope Gradients	3.83
23 Walkway Routing	3.71	23 Sewer	3.83
24 Earthwork -Erosion	3.63	24 Walkway Routing	3.77
25 Service Access	3.59	25 Lighting Characteristics	3.72
26 Electric	3.55	26 Walkway Adequacy	3.69
27 Dropoff and Loading Zone	3.46	27 Dropoff and Loading Zone	3.64
28 Energy Efficiency	3.44	28 Water	3.63
29 Lighting Characteristics	3.42	29 Earthwork -Design Grading	3.61
30 Lighting Security	3.38	30 Gas	3.58
31 Water	3.34	31 Electric	3.55
32 Sewer	3.32	32 Lighting Security	3.55
33 Future Communications	3.04	33 Energy Efficiency	3.48
34 Phone	3.04	34 Phone	3.44
35 Gas	2.97	35 Future Communications	3.41

Table 4.1 Importance Ratings of Site Design Issues for Denver and Kansas City

3. A t-test was used to assess whether there was a significant difference between the sample groups mean responses for each issue. (t-test and mean scores for each city appear in tables F.6, F.6a, F.6b of Appendix F).

Research Question 2. Research question 2 asked if there was a significant difference between Kansas/Missouri and Colorado respondents in the importance of each site design category defined as vehicular circulation, pedestrian circulation, screening, earthwork and drainage, utilities, lighting, open space, site to building relationships, and off-site impacts?

1. There were no significant differences between the sample areas concerning the category responses. Table 4.2 shows the rank ordering of the site design categories by mean scores. Note that the only difference between Denver and Kansas City is open space and building to site relationship.
2. A t-test was used to determine whether the mean scores of each category differed significantly between the two sample areas. The category response was determined by averaging all of the responses for each related issue (See Tables F.7, F.7a, F.7b in Appendix F).

Research question 3. Research question 3 asked whether there was a difference between Kansas and Missouri respondents compared to Colorado respondents, concerning the perceived need for more information for each specific design issue.

1. There was no significant difference between the two sample areas concerning the need for more information; however, some issues ranked higher than others in this regard. Table 4.3 shows the

TABLE : RATINGS OF IMPORTANCE OF SITE DESIGN CATEGORIES:

SORTED IN DESCENDING ORDER FOR			
MEAN RESPONSES		MEAN	
DENVER	SCORE	KANSAS CITY	SCORE
1 Open Space	4.20	1 Bldg to site relation	4.32
2 Bldg to site relation	4.16	2 Open Space	4.24
3 Screening	4.02	3 Screening	4.14
4 Vehicular Circulation	3.98	4 Vehicular Circulation	4.10
5 Earthwork	3.92	5 Earthwork	4.00
6 Off Site Impact	3.84	6 Off Site Impact	3.96
7 Pedestrian Circulation	3.79	7 Pedestrian Circulation	3.86
8 Lighting	3.40	8 Lighting	3.63
9 Utility	3.13	9 Utility	3.57

Table 4.2 Importance Ratings of Site Design Categories for Denver and Kansas City

site design issues for which the sample responded "YES". Table 4.4 show the site design issues about which the sample did not desire more information. Figures 4.4 and 4.5 are graphs which depict these response levels. Table 4.5 depicts the need for information based on the site design categories. Figures 4.6 and 4.7 are a graphic presentations of table 4.5 Note that issues which are treated in a more technical nature, such as vehicular circulation and utilities rated a negative response, while some traditionally aesthetic issues such as screening and open space rated positively. Refer to Tables F.9, of Appendix F for specific statistics and percentages).

2. Chi-square analysis was used to determine if there was an initial difference between the sample areas. Only those issues which were close to being significant were retested with a t-test to see if there was a significant difference between the mean response. The t-tests showed no significant differences.

Research question 4. Part A, asked whether there was a significant difference between the sample areas and the frequency of site design issues as a topic of discussion at planning meetings. Part B, asked if there is a correlation between the frequency and the importance rating of each design issue and each design issue category. For this, Pearson product-moment corelation method was used.

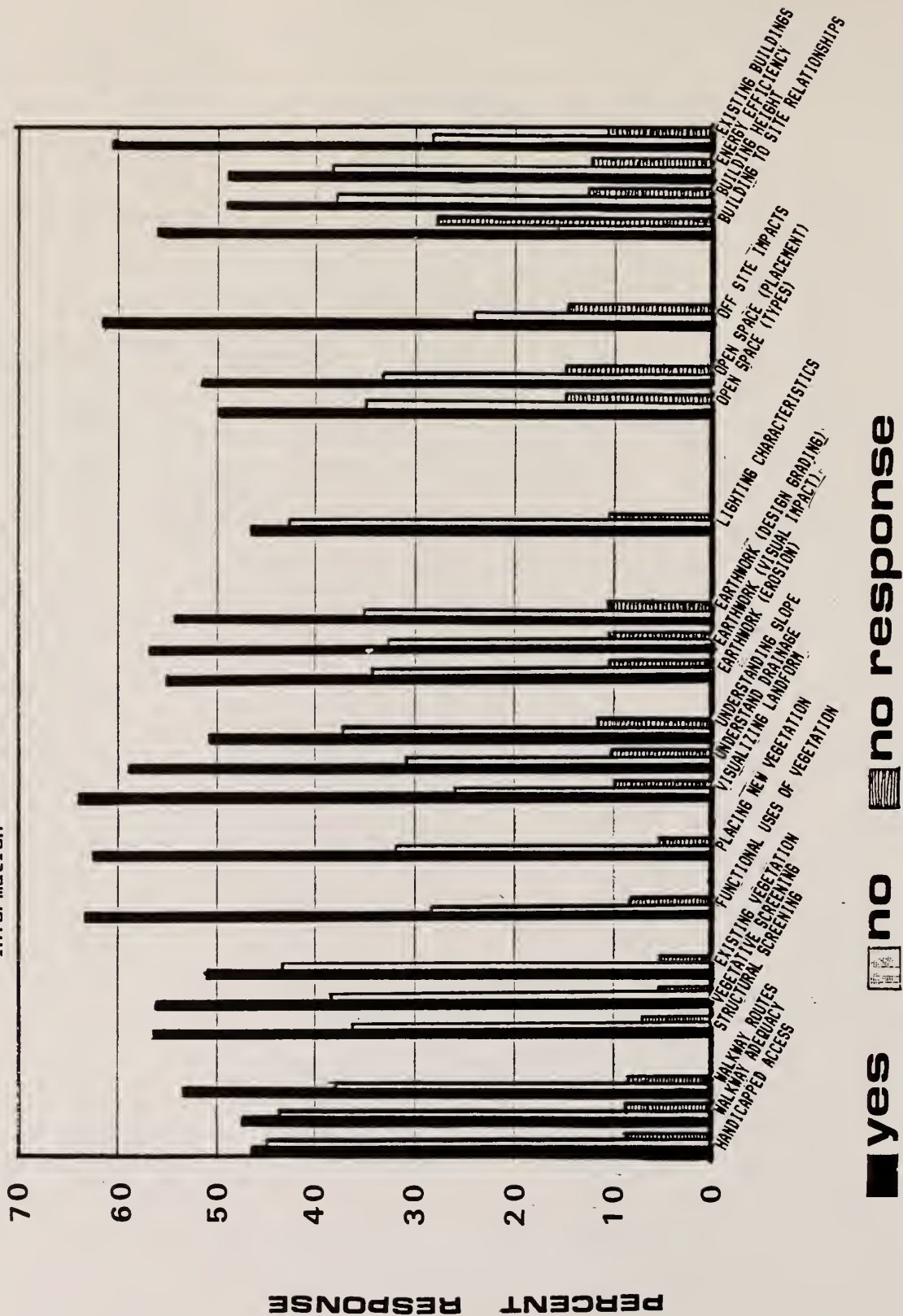
Part A.

1. There was no difference between the 2 sample areas on whether site design issues were topics of discussion at planning meetings. The results showed no significant difference.
2. A t test was used to determine whether there was a significant difference between the two sample areas mean scores. (See Table F.5, F.5a, F.5b, F.5c of Appendix F for specific statistics).

RESPONDENTS NEED MORE INFORMATION ON THESE SITE DESIGN ISSUES		YES	NO	NO RESPONSE
=====		=====	=====	=====
1	HANDICAPPED ACCESS	46.6	44.8	8.6
2	WALKWAY ADEQUACY	47.4	43.9	8.8
3	WALKWAY ROUTES	53.5	37.9	8.6
4	STRUCTURAL SCREENING	56.4	36.4	7.3
5	VEGETATIVE SCREENING	56.1	38.6	5.3
6	EXISTING VEGETATION	50.9	43.6	5.5
7	FUNCTION USES OF VEGETATION	63.3	28.3	8.3
8	PLACING NEW VEGETATION	62.5	32.1	5.4
9	VISUALIZING LANDFORM	63.9	26.2	9.8
10	UNDERSTAND DRAINAGE	58.6	31.0	10.4
11	UNDERSTANDING SLOPE EARTHWORK	50.8	37.3	11.9
12	(EROSION)	55.2	34.4	10.4
13	(VISUAL IMPACT)	56.9	32.8	10.3
14	(DESIGN GRADING)	54.4	35.1	10.5
15	LIGHTING CHARACTERISTICS	46.4	42.9	10.7
	OPEN SPACE			
16	(TYPES)	50.0	35.0	15.0
17	(PLACEMENT)	51.7	33.3	15.0
18	OFF SITE IMPACTS	61.3	24.2	14.5
19	BUILDING TO SITE RELATIONSHIPS	56.3	15.6	28.1
20	BUILDING HEIGHT	49.1	38.2	12.7
21	ENERGY EFFICIENCY	49.1	38.6	12.3
22	EXISTING BUILDINGS	60.7	28.6	10.7
=====		=====	=====	=====

**Table 4.3 Response to Site Design Issues
for Needing More Information**

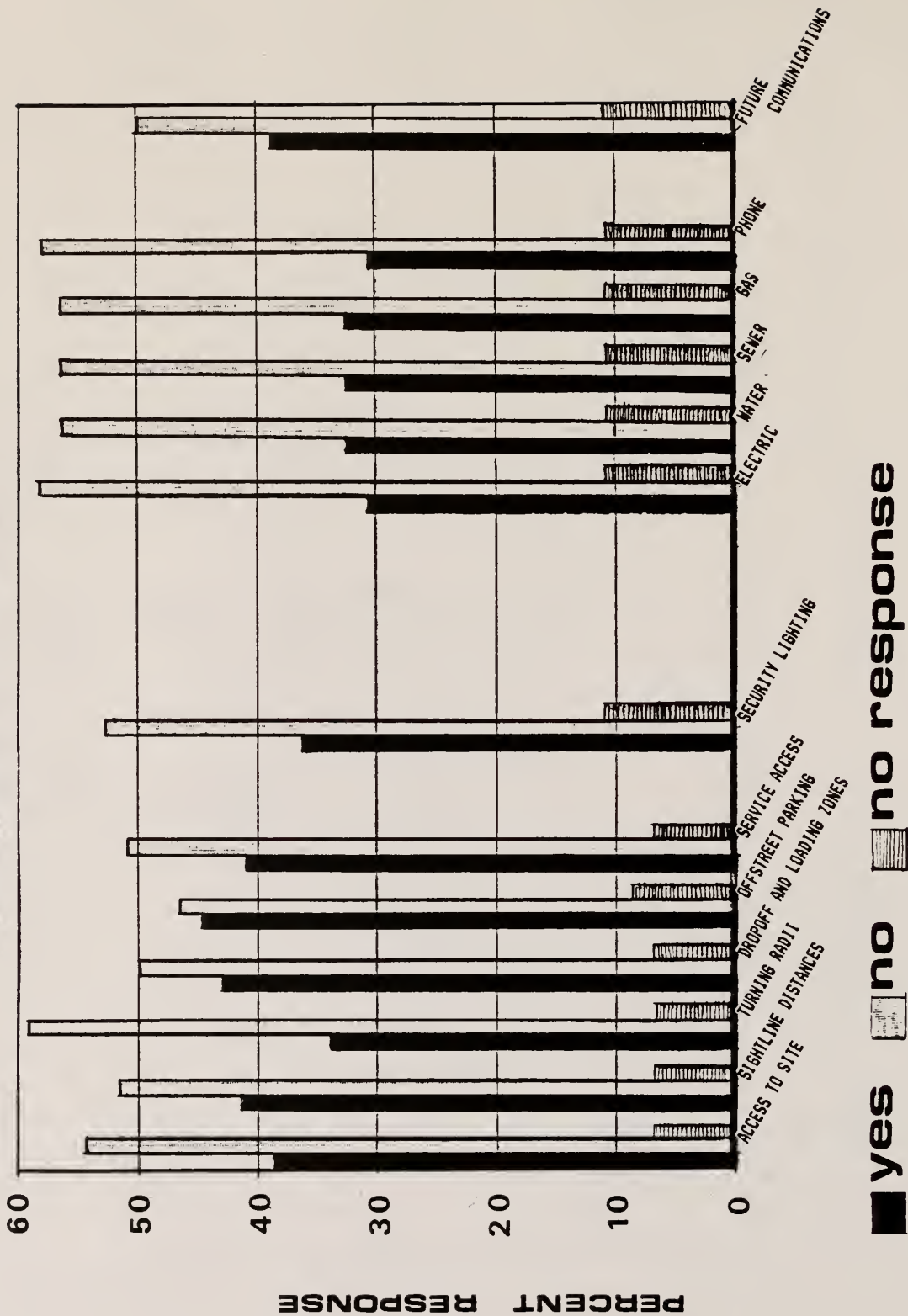
Figure 4.4 Bar Graph Showing Site Design Issues for Which Respondents Desired More Information



RESPONDENTS DO NOT NEED MORE INFORMATION ON THESE SITE DESIGN ISSUES		YES	NO	NO RESPONSE
=====		=====	=====	=====
1	ACCESS TO SITE	38.7	54.4	6.9
2	SIGHTLINE DISTANCES	41.4	51.7	6.9
3	TURNING RADII	34.0	59.3	6.7
4	DROPOFF AND LOADING ZONES	43.1	50.0	6.9
5	OFFSTREET PARKING	44.8	46.5	8.6
6	SERVICE ACCESS	41.1	50.9	7.0
7	SECURITY LIGHTING	36.4	52.7	10.9
	UTILITIES			
8	ELECTRIC	30.9	58.2	10.9
9	WATER	32.7	56.4	10.9
10	SEWER	32.7	56.4	10.9
11	GAS	32.7	56.4	10.9
12	PHONE	30.9	58.2	10.9
13	FUTURE COMMUNICATIONS	38.9	50.0	11.1
=====		=====	=====	=====

**Table 4.4 Response to Site Design Categories
for NOT Needing More Information**

Figure 4.5 Bar Graph Showing Site Design Issues for Which Respondents DID NOT Desire More Information



AVERAGE PERCENTAGE OF RESPONDENTS
WHO PERCEIVE A NEED FOR MORE INFORMATION
ON THESE SITE DESIGN CATEGORIES

	YES	NO	NO RESPONSE
1 OFF-SITE IMPACTS	61.3	24.2	15.0
2 SCREENING	57.9	35.8	6.3
3 EARTHWORK	56.6	32.8	10.5
4 BUILDING TO SITE RELATIONSHIPS	53.8	30.3	16.0
5 OPEN SPACE	50.8	32.8	10.5
6 PEDESTRIAN CIRCULATION	49.1	42.2	8.7

AVERAGE PERCENTAGE OF RESPONDENTS
WHO DO NOT PERCEIVE A NEED FOR MORE
INFORMATION ON THESE CATEGORIES

	YES	NO	NO RESPONSE
1 UTILITIES	33.2	55.9	10.9
2 VEHICULAR CIRCULATION	40.7	52.2	7.2
3 LIGHTING	41.4	47.8	10.8

Table 4.5 Response to Site Design Categories
for Needing and Not Needing More
Information (Average Percentages)

Figure 4.6 Bar Graph Showing the Categories of Site Design for Which Respondents Desired More Information

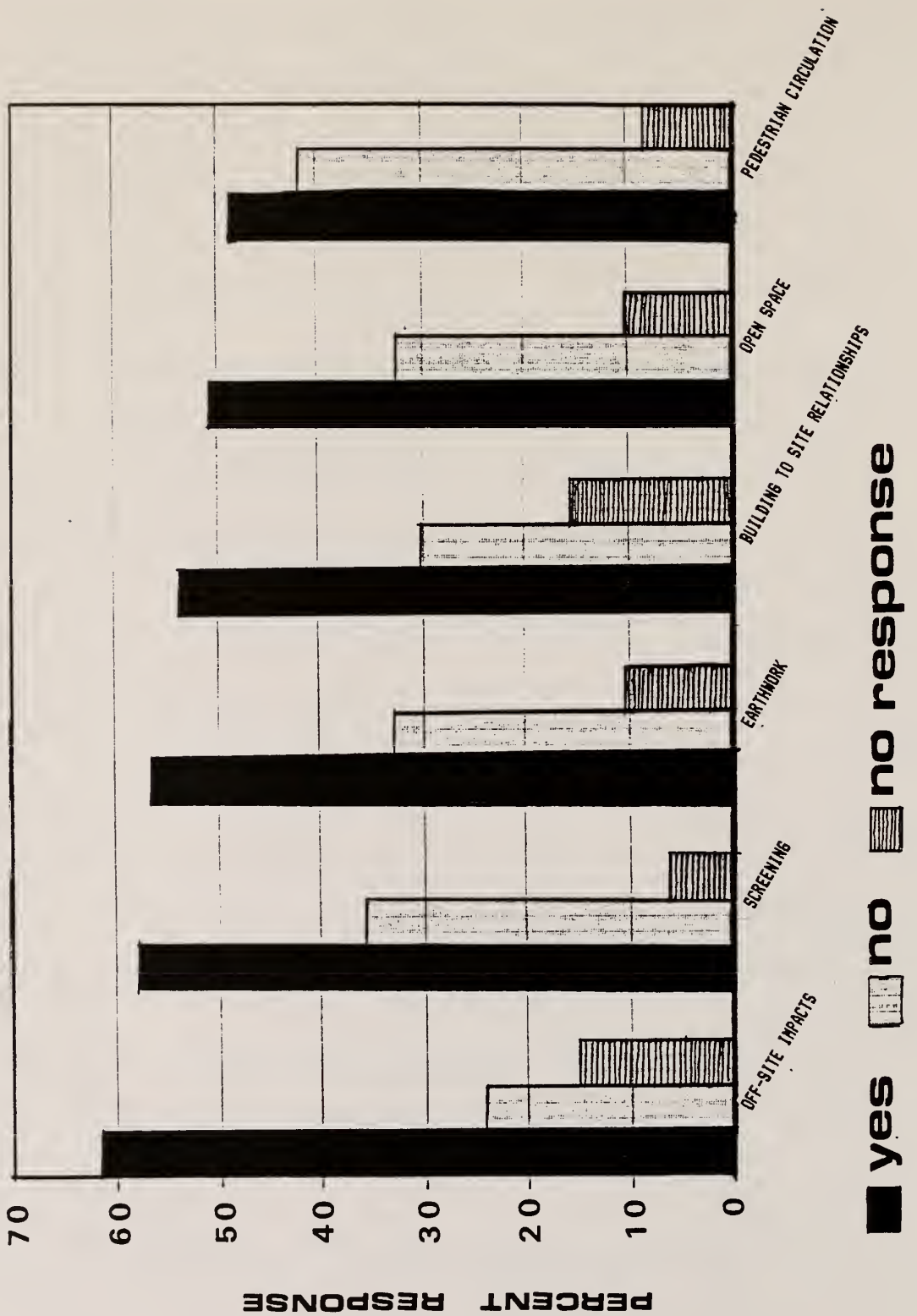
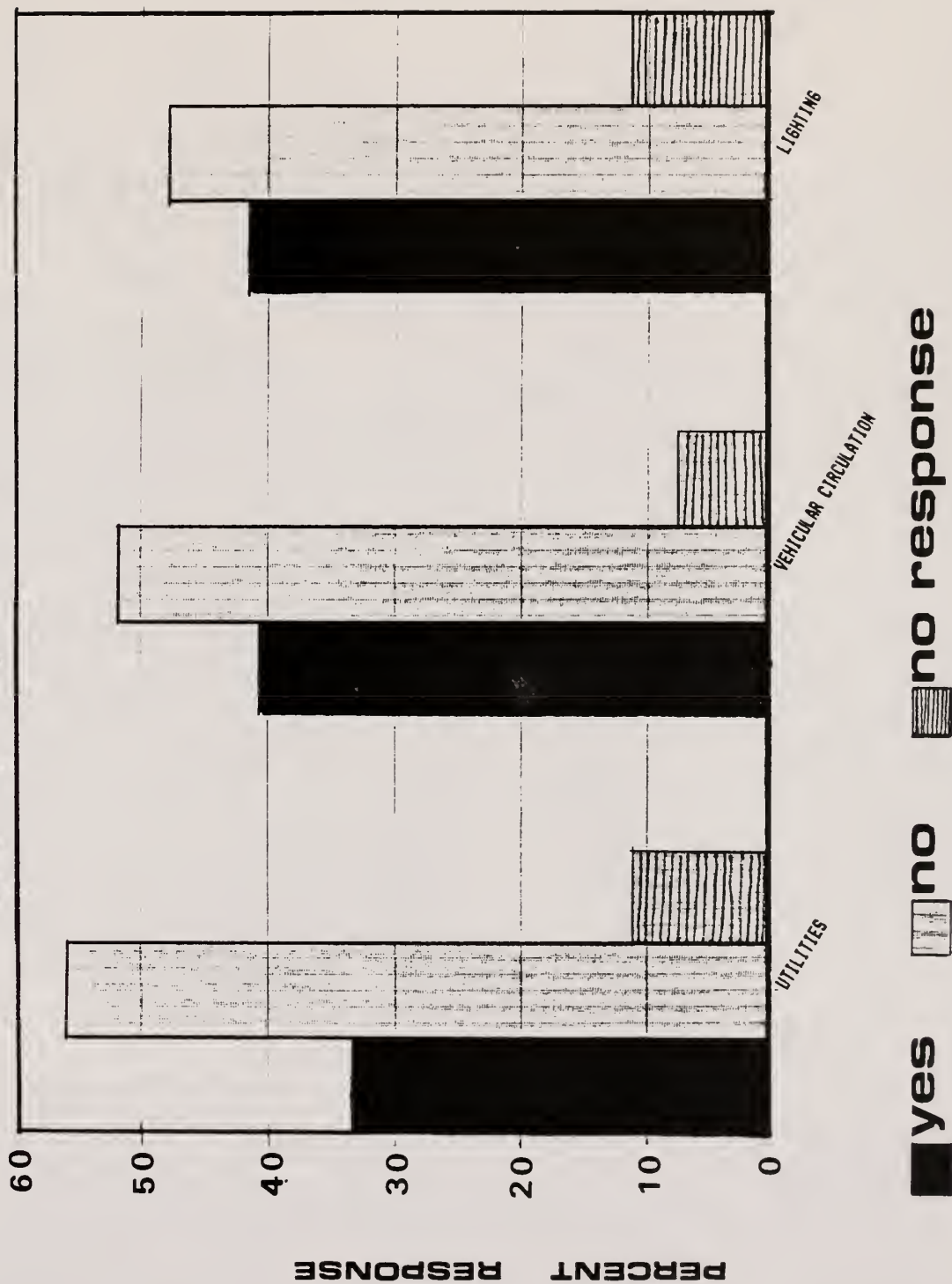


Figure 4.7 Bar Graph Showing the Categories of Site Design for Which Respondents DID NOT Desire More Information



Part B.

1. There was also no significant correlation between the ratings of the site design issues and whether site design was frequently a topic of discussion at planning meetings.

The Research question 5. Part A asked if there was a relationship between the populations of the cities and the importance of the categories of site design issues?

The population groups considered were

1	-10,000
	10,001-20,000
	20,001-30,000
	30,001-40,000
	Above 40,000

Part B asked if there was a relationship between the years of past experience and the importance of each design issue and each design issue category. Pearson product-moment correlation method was used to determine if there was a relationship between the categories, city population levels, and past experience in planning.

Part A.

1. There was no correlation between the population of the respondent areas and the ratings of the site design issues. This indicates that the importance of site design review issues is not necessarily a function of city size. The growth factor may be a more important aspect of city development to test (See Recommendations for Further Study).

Part B.

2. There also was no correlation between the respondents past years of experience and the ratings of the site design issues.

Research question 6. Question 6 asked for each category of site design, if there was a difference between Kansas/Missouri and Colorado respondents in the context preference for seminar information. The contexts assessed were public costs and benefits, aesthetics, or ecology. A general Linear Model procedure (ANOVA), was used to test this relationship.

1. There were no significant differences between respondent groups concerning the context for additional information. Table 4.6 shows what context was preferred for each site design category.

FREQUENCY OF HIGHEST RATINGS

			PUBLIC COSTS			HIGHEST RATING
	RATING	BENEFITS	AESTHETICS	ECOLOGY		
VEHICULAR CIRCULATION	1	10.34	3.44	13.79		
	2	13.79	18.39	16.02	PUBLIC	
	3	17.24	36.78	16.09	COSTS	
	4	40.23	17.24	29.88	4	
PEDESTRIAN CIRCULATION	1	11.62	8.04	12.50		
	2	22.09	12.64	23.86	AESTHETICS	
	3	23.25	39.08	20.45	3	
	4	23.25	16.02	17.04		
SCREENING	1	32.50	5.61	5.61		
	2	22.50	6.74	17.97		
	3	18.75	17.97	32.58	AESTHETICS	
	4	20.00	50.56	15.73	4	
EARTHWORK	1	10.00	4.70	12.50		
	2	36.25	12.90	10.22	AESTHETICS	
	3	22.50	36.47	19.31	3	
	4	10.00	24.70	34.09		
LIGHTING	1	10.00	9.00	13.63	ECOLOGY	
	2	23.75	15.90	30.68	2	
	3	27.50	25.00	18.18	AESTHETICS	
	4	18.75	30.68	5.68	4	
OPEN SPACE	1	6.17	10.58	5.68		
	2	20.98	11.76	13.63		
	3	27.16	23.52	26.13	AESTHETICS	
	4	28.39	36.47	35.22	4	
UTILITIES	1	19.04	15.09	18.18		
	2	17.85	10.22	22.72		
	3	17.85	27.27	20.45	AESTHETICS	
	4	27.38	23.86	10.22	4	
OFF-SITE IMPACTS	1	11.11	4.54	1.10		
	2	18.51	10.22	14.60		
	3	18.51	26.13	31.46	AESTHETICS	
	4	32.09	37.50	24.71	4	
ONTO-SITE IMPACTS	1	10.84	3.40	1.10		
	2	19.27	12.50	12.36	ECOLOGY	
	3	21.68	27.27	34.83	3	
	4	25.30	31.81	23.59		

Table 4.6 Context Preference for Each Site Design Category

CHAPTER V

CONCLUSIONS

This pilot study indicates that there is support for the conclusion that there are very few significant differences in the perceptions of planner and planning commissioners as to the importance of site design issues in planning, regardless of some apparent bio-physical and possible socio-cultural differences in the largely urban sample areas. Only one utility, "gas" showed a significant difference, yet the averaged utility response did not show a significant difference. The fact that only one issue out of thirty-five showed a difference, is not significantly related to the purpose of this study, which is to assess the importance of site design issues for seminar development, particularly when the respondents do not perceive a need for more information on that issue. From the standpoint of the content of a site design seminar, no significant differences in importance indicates there is a broader base for seminar application than on a "as per request" basis from individual communities. The content of that seminar therefore, would not have to be tailored to each community and the seminar would therefore have a broader market range.

From the response frequencies for "more information",

there is a need to address some of these site design issues more explicitly than they have been addressed in the past. Respondent comments indicate that seminars must not be too general in content to be productive and worthy of the respondent's attendance. The real problem arises from the method of delivery of the information. The majority of respondents indicated they had an economic hardship as well as a time constraint when it came to devoting time to learning a working knowlege of site design. This was because most cities did not encourage continuing education and because most of the respondents served as volunteers and could not take time off from their regular jobs.

These findings indicate that an alternative method of delivering this information should be investigated. This alternative should be one in which the respondent, who has a flexible time schedule, is in control of the delivery method, such as through Telenet programing, or video cassette. These two presentation methods are visual in nature and, because the process of design assessment is a largely a visualizing process, presentation of site design assessment techniques could be easily adapted to these visual aids, and accompanied by supporting textual materials such as workbooks.

The desire for more information appeared to be channelled away from the functional and technically treated

issues of vehicular circulation and utilities and towards the traditionally aesthetic and locational types of issues. Pedestrian circulation, screening, earthwork, off-site impacts, open space, building to site relationships, and lighting characteristics strongly relate to land use planning and comprehensive plan development. These issues are also strongly relate to user-site visual perceptions.

The strongly visual categories of open space and building to site relationship which showed a rank order difference based on mean scores but were not statistically different (See tables 4.2, F.7, F.7a, or F.7b). A larger sample however, might reveal more insight into a statistical difference that could occur in the priority of open space in Denver verses building to site relationships in Kansas City.

A repeat of the study with some modifications to the instrument and a larger sample may also show changes in perceptions over time which may be tied to changes in community values directed by economic and political cycles or changes bio-physical environment as influenced by the growth factor. These are the important trends that any professional in the design fields would find useful.

CHAPTER VI

RECOMMENDATIONS

Methodology

The design of a survey instrument. Any questions using a semantic differential method should consist of at least 7 rating options. This guarantees a better distribution of responses making a finer distinction between group of responses. This may also require a larger sample to get a greater number of responses such that chi-square analysis yields more fruitful conclusions.

2. I would separate most of the informed consent information from the coverletter. Together, they confuse the purpose of the study and often turn people off to answering a questionnaire.
3. Matrix questions should be avoided as the tendency to respond in a pattern rather than answering the question. While this was not serious problem in this survey it was noted by 2 respondents.
4. If using business reply mailing, check into the cost factor for postage - which includes; base cost of a

permit, a handling charge and a time limit for the permit. For a small number of surveys it would be cheaper to use regular postage stamps but the reliability of your survey will be jeopardized if you use a small sample.

For Further Study

I would recommend taking the cities from KC and Denver which had the most respondents and through an interview process go to those cities and analyze bio-physical, social, cultural, political or economic factors which may contribute to the level of importance of the design issues in that city. The reasons for design issues being important could be as simple as the general educational level of the populace.

Secondly, I would take the cities with the highest importance responses and analyze their city ordinances and how they are implemented. This may include interviews that ask questions as to where the information to develop the ordinances was obtained and what political groups pushed to have an ordinance drawn up and implemented. Case studies also need to be done to assess why some site design review ordinances work and others don't (See article, Design by Committee, in May 1987 issue of Planning page 22.)

Third, I recommend that a second study be done using a larger sample area with metropolitan areas that are more divergent in character. For example: Comparing a Northeast coastal city to a land locked southern city such as Dallas-Fort Worth.

Fourth, I believe a study could be done to assess which are the best delivery approaches for making site design information assessible to the groups who use this type of information. This would be a marketability study for flexible delivery types. The importance here would be to assess what is the most convenient, marketable, and acceptable type of delivery based on user opinion.

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APPENDIX A

PLANNER SURVEY FORM

David Durnford
121 N. 17th St.
Manhattan, Kansas
66502
Date: November 1, 1986

Dear Planners / Commissioners,

At regional planning meetings planning directors and commissioners have expressed a need for further specialized education on site design issues. Site design is defined as the way development is laid out on the land. Zoning for Planned Unit Development (PUD's) is a prime example of development proposals evaluated and approved through a site design review process. For the planners and commissioners who feel the content and evaluation process is important to protecting public interests, specialized education would appear to speed up the approval process. This specialized training might also free time for more long range comprehensive planning.

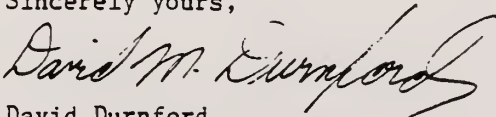
The purpose of this study is to assess whether there is a genuine interest in further education about site planning issues. Specifically, We would like your opinion on what the content of continuing education in site design should be, based on what site design issues are important concerns in your community.

All of the responses to this questionnaire shall be held in complete confidence and will be used only for the purposes of this study. You are under no obligation to answer any portion of this questionnaire; however, your sincere responses will make a valuable base line for future investigations and the design of seminars to meet local planning needs. It should take about 25 minutes to answer all of the questions. Please feel free to use the back of this questionnaire to make comments clarifying your answers.

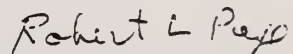
If you would like to receive a copy of the results, fill out the last page or send me a post card. A synopsis of the results will be sent to you.

If you have any questions please feel free to contact me using the phone number or address listed below. Thank you very much for your time and effort answering this questionnaire.

Sincerely yours,



David Durnford
Graduate Student Landscape Architecture
Kansas State University
Manhattan, Kansas 66502
Phone: 913 539-1431



Professor Robert Page
Thesis Committee Chairman

Site Planning Questionnaire

1. Name of your town ? _____
2. Would you consider the character of your town to be 1.URBAN _____?
2.RURAL _____?
3. The population of the town you serve? _____ in thousands.
4. How long have you served in your present position? _____yrs.
5. How long have you served in the planning field? _____yrs.
6. Does your town have a site design review process? 1. YES _____
2. NO _____

If yes, do you feel the process is improving the quality of development in your city?

7. Do you have formal training in site design? 1. YES _____
If yes, describe your training. 2. NO _____
8. Do you have formal training in site design assessment? 1. YES _____
If yes, describe your training. 2. NO _____
9. Have you gained most of your knowledge about site design from on the job experience? 1. YES _____
2. NO _____
10. Do you have sufficient trained staff to conduct a site design review? 1. _____YES If yes, how many _____?
2. _____NO
11. Under typical conditions, how many of these staff members are directly involved in the review process at one time? _____.

12. Has a consultant been retained as a source for site design expertise? 1. _____ YES If yes, from what discipline _____
2. _____ NO.
13. How many staff members are architects? _____
landscape architects? _____
14. How frequent are site design issues topics of discussion at planning board meetings? (circle an answer)
- | | | | | |
|-------|--------|-----------|------------|--------|
| NEVER | RARELY | SOMETIMES | FREQUENTLY | ALWAYS |
| 1 | 2 | 3 | 4 | 5 |
15. How frequent are site design issues a topic of discussion with the general public? (circle an answer)
- | | | | | |
|-------|--------|-----------|------------|--------|
| NEVER | RARELY | SOMETIMES | FREQUENTLY | ALWAYS |
| 1 | 2 | 3 | 4 | 5 |
16. How comfortable do you feel to discuss site design concerns with the following professions. (circle a number)
- | | VERY UNCOMFORTABLE | | | | VERY COMFORTABLE |
|------------------------------|--------------------|---|---|---|------------------|
| Developers | 1 | 2 | 3 | 4 | 5 |
| Landscape Architects | 1 | 2 | 3 | 4 | 5 |
| Architects | 1 | 2 | 3 | 4 | 5 |
| Planners | 1 | 2 | 3 | 4 | 5 |
| General Public | 1 | 2 | 3 | 4 | 5 |
| Other planning board members | 1 | 2 | 3 | 4 | 5 |
| Engineers | 1 | 2 | 3 | 4 | 5 |
17. What is the job title of the person in your town who is responsible for education about site design issues and the review process? _____.
18. How is the knowledge of your town's site design concerns passed on to new staff members?

19. How responsive is the city commission to recommendations of the planning commission for adopting site design regulations. (circle a number)

NOT		IN		VERY
RESPONSIVE		BETWEEN		RESPONSIVE
1	2	3	4	5

20. Do you think your performance as a planner would improve significantly by increasing your present knowledge of site design? (circle a number)

NOT AT ALL				ABSOLUTELY
1	2	3	4	5

21. If a seminar or series of seminars on site planning were available, How many days would you devote to learning a working knowledge of site design? _____ days

22. How much would your office be willing to spend for a class on site design? (Check one answer)

\$ 1 - \$100.....
\$101 - \$200.....
\$201 - \$300.....
\$301 - \$400.....
\$401 - \$500.....
more than \$500.....

23. To what extent does your local government encourage continuing education for planners. (circle a number)

NEVER				VERY
1	2	3	4	FREQUENTLY
				5

24. What form of encouragement or incentive does your local government offer for attending continuing education classes?

(Check all answers that apply)

Travel expenses _____
Paying for course _____
Job upgrade _____
other (specify) _____

25. The following is a list of SITE DESIGN ISSUES. In section 1 please circle a number rating the issues' importance to your city's planning. In section 2 please circle yes or no if you think you need more information about this issue. Please feel free to use the back of this questionnaire to make comments to clarify the importance or level of detail you would like to see discussed and how you feel the issue presents an obstacle for you in the approval process.

	section 1					section 2	
	<u>NOT</u> <u>IMPORTANT</u> 1	2	3	<u>VERY</u> <u>IMPORTANT</u> 4	5	NEED MORE INFORMATION Y N	
Vehicular circulation							
Access to site.	1	2	3	4	5	Y	N
Sightline distances	1	2	3	4	5	Y	N
Appropriate turning radii	1	2	3	4	5	Y	N
Drop off and loading zones	1	2	3	4	5	Y	N
Off street parking	1	2	3	4	5	Y	N
Service access	1	2	3	4	5	Y	N
Pedestrian Circulation							
Handicapped access	1	2	3	4	5	Y	N
Adequate sizing of walkways	1	2	3	4	5	Y	N
Routing of walkways	1	2	3	4	5	Y	N
Screening							
Structural screens like fences and walls	1	2	3	4	5	Y	N
Vegetative Screening:	1	2	3	4	5	Y	N
Existing vegetation	1	2	3	4	5	Y	N
Functional uses (vegetation)	1	2	3	4	5	Y	N
Placement of new vegetation	1	2	3	4	5	Y	N

	SECTION 1					SECTION 2	
	<u>NOT</u> <u>IMPORTANT</u>			<u>VERY</u> <u>IMPORTANT</u>		MORE INFORMATION	
Earthwork							
Visualizing landform changes	1	2	3	4	5	Y	N
Understanding drainage	1	2	3	4	5	Y	N
Slope gradients	1	2	3	4	5	Y	N
Earthwork as related to erosion control	1	2	3	4	5	Y	N
visual impact	1	2	3	4	5	Y	N
design grading	1	2	3	4	5	Y	N
Exterior lighting							
Lighting characteristics	1	2	3	4	5	Y	N
Security lighting	1	2	3	4	5	Y	N
Open space							
Types of open space	1	2	3	4	5	Y	N
Placement criteria	1	2	3	4	5	Y	N
Utility routing							
Electrical	1	2	3	4	5	Y	N
Water	1	2	3	4	5	Y	N
Sewer	1	2	3	4	5	Y	N
Gas	1	2	3	4	5	Y	N
Telephone	1	2	3	4	5	Y	N
Future communications	1	2	3	4	5	Y	N
Off site impacts	1	2	3	4	5	Y	N
Building site relationships	1	2	3	4	5	Y	N
Height of building	1	2	3	4	5	Y	N
energy efficiency	1	2	3	4	5	Y	N
relationship to existing structures and site	1	2	3	4	5	Y	N

26. In a seminar, information should be presented in a context that will be most useful to the audience.

For each site design issue rank the contexts on a scale of 1 to 4 to show where you feel emphasis should be placed for that particular issue in a seminar. Use 1 for the LEAST important context and 4 as the MOST important context.

SITE DESIGN ISSUES	CONTEXTS			
	PUBLIC COSTS AND BENEFITS	AESTHETICS AND VISUAL QUALITY	ECOLOGY & LAND USE CAPABILITY	OTHER (PLEASE) (SPECIFY)
Vehicular circulation				
Pedestrian circulation				
Screening				
Earthwork				
Exterior lighting				
Open space				
Utility routing				
OFF SITE IMPACTS (impacts from development site onto adjacent sites)				
(impacts from other sites onto the development site)				

IF you would like a copy of the results of this study please fill in your name and address or send me a postcard with your name and address. A synopsis of the results will be sent to you when analysis is completed.

Name _____
street _____
city _____
state _____
zip code _____

Again: Thank you very much for completing this questionnaire.

APPENDIX B

COMMISSIONER SURVEY FORM

David Durnford
121 N. 17th St.
Manhattan, Kansas
66502
Date: November 1, 1986

Dear Planners / Commissioners,

At regional planning meetings planning directors and commissioners have expressed a need for further specialized education on site design issues. Site design is defined as the way development is laid out on the land. Zoning for Planned Unit Development (PUD's) is a prime example of development proposals evaluated and approved through a site design review process. For the planners and commissioners who feel the content and evaluation process is important to protecting public interests, specialized education would appear to speed up the approval process. This specialized training might also free time for more long range comprehensive planning.

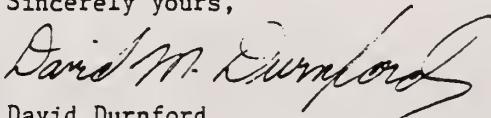
The purpose of this study is to assess whether there is a genuine interest in further education about site planning issues. Specifically, We would like your opinion on what the content of continuing education in site design should be, based on what site design issues are important concerns in your community.

All of the responses to this questionnaire shall be held in complete confidence and will be used only for the purposes of this study. You are under no obligation to answer any portion of this questionnaire; however, your sincere responses will make a valuable base line for future investigations and the design of seminars to meet local planning needs. It should take about 25 minutes to answer all of the questions. Please feel free to use the back of this questionnaire to make comments clarifying your answers.

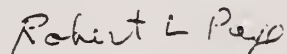
If you would like to receive a copy of the results, fill out the last page or send me a post card. A synopsis of the results will be sent to you.

If you have any questions please feel free to contact me using the phone number or address listed below. Thank you very much for your time and effort answering this questionnaire.

Sincerely yours,



David Durnford
Graduate Student Landscape Architecture
Kansas State University
Manhattan, Kansas 66502
Phone: 913 539-1431



Professor Robert Page
Thesis Committee Chairman

Site Planning Questionnaire

1. Name of your town ? _____
2. Would you consider the character of your town to be 1.URBAN _____?
2.RURAL _____?
3. The population of the town you serve? _____ in thousands.
4. How long have you served in your present position? _____yrs.
5. How long have you served in the planning field? _____yrs.
6. Does your town have a site design review process? 1. YES _____
2. NO _____
7. Do you have formal training in site design? 1. YES _____
If yes, describe your training. 2. NO _____

If yes, do you feel the process is improving the quality of
development in your city?
8. Do you have formal training in site design assessment? 1..YES _____
If yes, describe your training. 2. NO _____
9. Have you gained most of your knowledge about site design from on
the job experience? 1. YES _____
2. NO _____
10. Has a consultant been retained as a source for site design
expertise? 1. _____YES If yes, from what discipline _____
2. _____NO.
11. How many commission members are
architects? _____
landscape architects? _____

12. How frequent are site design issues topics of discussion at planning board meetings? (circle an answer)

NEVER	RARELY	SOMETIMES	FREQUENTLY	ALWAYS
1	2	3	4	5

13. How frequent are site design issues a topic of discussion with the general public? (circle an answer)

NEVER	RARELY	SOMETIMES	FREQUENTLY	ALWAYS
1	2	3	4	5

14. How comfortable do you feel to discuss site design concerns with the following professions. (circle a number)

	VERY UNCOMFORTABLE	1	2	3	4	5	VERY COMFORTABLE
Developers		1	2	3	4	5	
Landscape Architects		1	2	3	4	5	
Architects		1	2	3	4	5	
Planners		1	2	3	4	5	
General Public		1	2	3	4	5	
Other planning board members		1	2	3	4	5	
Engineers		1	2	3	4	5	

15. What is the job title of the person in your town who is responsible for education about site design issues and the review process? _____.

16. How is the knowledge of site design issues passed on to new commission members?

17. How responsive is the city commission to recommendations of the planning commission for adopting site design regulations. (circle a number)

NOT RESPONSIVE		IN BETWEEN		VERY RESPONSIVE
1	2	3	4	5

18. Do you think your performance as a commissioner would improve significantly by increasing your present knowledge of site design? (circle a number)

NOT AT ALL

1

2

3

4

ABSOLUTELY

5

19. If a seminar or series of seminars on site planning were available, How many days would you devote to learning a working knowledge of site design? _____ days

20. How much would your office be willing to spend for a class on site design? (Check one answer)

\$ 1 - \$100.....
\$101 - \$200.....
\$201 - \$300.....
\$301 - \$400.....
\$401 - \$500.....
more than \$500.....

21. To what extent does your local government encourage continuing education for planning commissioners (circle a number)

NEVER

1

2

3

4

VERY
FREQUENTLY

5

22. What form of encouragement or incentive does your local government offer for attending continuing education classes?
(Check all answers that apply)

Travel expenses _____
Paying for course _____
other (specify) _____

23. The following is a list of SITE DESIGN ISSUES. In section 1 please circle a number rating the issues importance to city planning. In section 2 please circle yes or no if you think you need more information about this issue. Please feel free to use the back of this questionnaire to make comments on the importance or level of detail you would like to see presented and how you feel the topic presents an obstacle for you in the approval process.

	section 1					section 2	
	<u>NOT</u> <u>IMPORTANT</u> 1	2	3	<u>VERY</u> <u>IMPORTANT</u> 4	5	NEED MORE INFORMATION	
Vehicular circulation							
Access to site.	1	2	3	4	5	Y	N
Sightline distances	1	2	3	4	5	Y	N
Appropriate turning radii	1	2	3	4	5	Y	N
Drop off and loading zones	1	2	3	4	5	Y	N
Off street parking	1	2	3	4	5	Y	N
Service access	1	2	3	4	5	Y	N
Pedestrian Circulation							
Handicapped access	1	2	3	4	5	Y	N
Adequate sizing of walkways	1	2	3	4	5	Y	N
Routing of walkways	1	2	3	4	5	Y	N
Screening							
Structural screens like fences and walls	1	2	3	4	5	Y	N
Vegetative Screening:	1	2	3	4	5	Y	N
Existing vegetation	1	2	3	4	5	Y	N
Functional uses (vegetation)	1	2	3	4	5	Y	N
Placement of new vegetation	1	2	3	4	5	Y	N

	SECTION 1					SECTION 2	
	<u>NOT</u> <u>IMPORTANT</u>			<u>VERY</u> <u>IMPORTANT</u>		MORE INFORMATION	
Earthwork							
Visualizing landform changes	1.	2	3	4	5	Y	N
Understanding drainage	1	2	3	4	5	Y	N
Slope gradients	1	2	3	4	5	Y	N
Earthwork as related to erosion control	1	2	3	4	5	Y	N
visual impact	1	2	3	4	5	Y	N
design grading	1	2	3	4	5	Y	N
Exterior lighting							
Lighting characteristics	1	2	3	4	5	Y	N
Security lighting	1	2	3	4	5	Y	N
Open space							
Types of open space	1	2	3	4	5	Y	N
Placement criteria	1	2	3	4	5	Y	N
Utility routing							
Electrical	1	2	3	4	5	Y	N
Water	1	2	3	4	5	Y	N
Sewer	1	2	3	4	5	Y	N
Gas	1	2	3	4	5	Y	N
Telephone	1	2	3	4	5	Y	N
Future communications	1	2	3	4	5	Y	N
Off site impacts	1	2	3	4	5	Y	N
Building site relationships							
Height of building	1	2	3	4	5	Y	N
energy efficiency	1	2	3	4	5	Y	N
relationship to existing structures and site	1	2	3	4	5	Y	N

24. In a seminar, information should be presented in a context that will be most useful to the audience.

For each site design issue rank the contexts on a scale of 1 to 4 to show where you feel emphasis should be placed for that particular issue in a seminar. Use 1 for the LEAST important context and 4 as the MOST important context.

	PUBLIC COSTS AND BENEFITS	AESTHETICS AND VISUAL QUALITY	ECOLOGY & LAND USE CAPABILITY	OTHER (PLEASE) (SPECIFY)
<u>SITE DESIGN ISSUES</u>				
Vehicular circulation				
Pedestrian circulation				
Screening				
Earthwork				
Exterior lighting				
Open space				
Utility routing				
OFF SITE IMPACTS (impacts from development site onto adjacent sites)				
(impacts from other sites onto the development site)				

IF you would like a copy of the results of this study please fill in your name and address or send me a postcard with your name and address. A synopsis of the results will be sent to you when analysis is completed.

Name _____
street _____
city _____
state _____
zip code _____

Again: Thank you very much for completing this questionnaire.

APPENDIX C

POSTCARD REMINDER

YOUR HELP IS NEEDED. Recently, I sent you a copy of a questionnaire on site design; the basis for my thesis in Landscape Architecture and Design. I would appreciate it very much if you could return the questionnaire before November 30, 1986 so I may complete the statistical analysis for graduation. Please take a few minutes from your busy schedule to complete and return the survey in the postage paid envelope. If you have questions or lost your questionnaire, please contact me. If you have already returned it, your assistance has been greatly appreciated. Thank you,

APPENDIX D

LIST OF CITIES SAMPLED

SAMPLE CITIES SORTED BY POPULATION STATISTICS

DENVER AREA	POPULATION	PLANNER	KANSAS CITY AREA	POPULATION	PLANNER
Arvada	84576	X	Shawnee	154916.00	X
Westminster	50211	X	Independence	111806.00	X
Thornton	40343	X	Overland Park	81784.00	X
Wheat Ridge	30293	X	Olathe	37258.00	X
Englewood	30021	X	Raytown	31759.00	X
Northglenn	29847	X	Blue Springs	25927.00	X
Littleton	28631	X	Prairie Village	24657.00	X
Brookfield	20730		Grandview	24502.00	X
Commerce City	16234	X	Lenexa	18639.00	X
Golden	12237	X	Westwood	17831.00	
Federal Heights	7846	X	Leawood	13360.00	X
Greenwood Village	5729		Belton	12708.00	
Edgewater	5714	X	Merriam	10794.00	
Sheridan	5377		Bonner Springs	6266.00	X
Cherry Hills Village	5127		Edwardsville	3364.00	
Louisville					
Lakewood		X			
Glendale		X			

SAMPLE AREA CITY STATISTICS SORTED ALPHABETICALLY

DENVER AREA	POPULATION	PLANNER	KANSAS CITY AREA	POPULATION	PLANNER
Arvada	84576	X	Belton	12708.00	
Brookfield	20730		Blue Springs	25927.00	
Cherry Hills Village	5127		Bonner Springs	6266.00	X
Commerce City	16234	X	Edwardsville	3364.00	
Edgewater	5714	X	Grandview	24502.00	X
Englewood	30021	X	Independence	111806.00	X
Federal Heights	7846	X	Leawood	13360.00	X
Glendale		X	Lenexa	18639.00	X
Golden	12237	X	Merriam	10794.00	
Greenwood Village	5729		Olathe	37258.00	X
Lakewood		X	Overland Park	81784.00	X
Littleton	28631	X	Prairie Village	24657.00	X
Louisville			Raytown	31759.00	X
Northglenn	29847	X	Shawnee	154916.00	X
Sheridan	5377		Westwood	17831.00	
Thornton	40343				
Westminster	50211	X			
Wheat Ridge	30293	X			

Table D.1 Table of Cities Sampled

APPENDIX E

RESPONDENT COMMENTS

* indicates a separate respondents remarks

Colorado Planning Commissioners:

* Arvada
One UCLA Course in Urban Design School of Architecture 1964. No training of our commissioners in site design at present. We have a thorough PUD process which we feel helps assume quality development in Arvada. We have extensive access to professionals on and off staff and require developers to obtain professional certifications regarding floodplain drainage, soils tests, traffic impact analysis, impact on the tax base and others, routinely as part of plan submission.
We are now developing architectural design guidelines for residential.

A Landscape Architect reviews each plan for landscape. Planning staff reviews each plan for other PUD issues: fire, city engineers review each plan and make recommendations.

City council frequently leads on the adopting design regulations.

My impression from APA conferences is that Colorado cities are generally ahead of most of nation on site design and in lieu fees controls.

Opinions of issues:
Sightline distances (safety and view of open spaces.

Turning radii (important for fire trucks)

Pedestrian circulation and bicycles

Handicapped parking

Landscaping pedestrian walkways

Pedestrian circulation tie-ins to neighborhood

Facilities, other developments and open space. We like trails!

Screening: We save existing trees

Police concerns regarding visibility of stores to street vs. aesthetics.

Utilities: Loops required for water, availability is critical. Sewer must flow down hill.

Building site relationships: energy efficient
Use sun to melt the snow

Development must pay own way, including all
public improvements(reimbursements from others
over time.

S t r e e t s c a p e i s s u e s i n
residential/commercial/industrial site designs
rate a (1) on aesthetics and visual quality, (2)
on public costs and benefits, (3) on ecology and
land use capability.

- * Englewood
Training- Experience and on the job training.
- * Sheridan
Training- On the job training: Little or no
training.
Workshop offers at local government meetings
where many subjects are available to attend. The
mayor and council genrally attend these meetings.
One councilman and the mayor are members of the
planning commission.
We are working on updating our comprehensive plan
at the present time. Our zoning ordinances have
ben updated and improved. We have having most
progress with the PUD type development. "Our
area" is one that is more or less depressed and
needs development for better tax base and overall
improvement. When a zoning change comes up for
the public hearing, the public comes our to the
hearing and voices a NO on any change. Therefore
there is no hope for improvement. As a member of
the planning commission I feel the most
beneficial assets are good common sense, weighing
both sides of the question, protect the public
and do what is best for the city and it's people.
authors note:(I suspect that this may mean
balancing a short term decision against the long
term impacts of a project, and this could involve
site improvements)
- * Northglenn
training- (by)osmosis
- * Arvada
Training- Study sessions
- * Englewood
Training- Trial and Error and at meetings.

- * Federal Heights
Training- Special meetings with Administrative assistant.
- * Golden
Training- via study sessions
- * Suburb of Denver.
(city has 1 architect: he is not knowledgeable about site design unfortunately.
Training- on the job training, given books on duties of planning commissioners.
Did not feel that the questionnaire addressed the request in the coverletter.

Authors note: Continuing education, if it is important in any field, must be a self-perceived need unless it is pushed or demanded by supervisors. Attendance for this type of seminar must address issues that are important before people will attend. From what I have read on the duties of the commissioner in APA publications by Albert Solnit and others, we may be demanding more of our commissioners than they have the background to give. It makes one wonder if planning is progressing or merely maintaining a status-quo or in actuality failing in its mission).

- * Wheatridge
Training- By listening and observing.
- * Englewood
Training- none
Planning and zoning a function of a combined commission. Subject to review by City council. This is the normal process for this advisory body.
- * Littleton
Training- Through Staff Reviews
- * Louisville
Training- briefings and PUD's
Vehicular, Pedestrian circulation and Lighting rated highest (4) for Safety
- * Broomfield
Training- Through preliminary and final PUD and Site development plans.

- * Wheatridge
Training- infrequent educational sessions - by planning staff.
- * Golden
Training and written policy statements
Vehicular Circulation is assessed by fire department and earthwork by drainage control department.
- * Littleton
Training- work sessions
- * Wheatridge
Training- At review meetings
Due to tight budget requiring of such expenditures for seminars would not be approved.
Training- Some design workshops in study sessions by mostly on the job training.
- * Thornton
Training- Staff recommendations/supporting reasons and discussion with commissioners.
- * Thornton
Training- In no way.
- * Englewood
Design Review has established a motif conducive to an aesthetically designed community center activity area.
Seminars are conducted on site with developers input.
Training- During application Review for permits or public hearings.
- * Greenwood Village
Training- no formal process.
- * Westminster
unclear, staff has formal training and we consult staff.
Training- on the job training - some training sessions.
- * Golden
Training- On the job training, reviews and discussions.

- * Cherry Hills Village
Training- By word of mouth and on the job experience.
Since our town is 99 % residential some of the more complicated aspects of site planning are probably not necessary in this instance. All utilities are required to be underground.
Cherry Hills Village is about 20 minutes from down town Denver. It is residential with a rural atmosphere that is fast fading with the influx of more city oriented people. It is almost built out at this time. We have strict zoning regulations. The Planning and Zoning Commission is interested in allowing a PUD as an overlay in some of the larger undeveloped sites, but council (city council) will have none of it.
- * Westminster
Training- Through discussion of planning issues and impending development.
- * Louisville
Training- Workshops and premeeting packets.
- * Littleton
Training- non-existent
- * Northglenn
Training- Handbook- occassional training sessions.
Vehicular cirulation - Fuel conservation;
Pedestrian circulation - child safety;
Screening - water conservation;
Earthwork - soils erosion;
Exterior lighting - energy conservation;
Open space - future crowding;
Utility routing - combining services.
comments: My answers may be somewhat skewed because I have spent 3 plus years as a marketing director for a large size firm of architects, engineers and planners. Hope your replys come in as well as mine did for the M.B.A. I got 85% and within 6 weeks. The data that resulted was checked later against other independent sources and found highly accurate. Thanks for the opportunity to participate.

- * Arvada
Training- Thru experience, seminars and reading.
The site design issues seem to be various w/ fire department and normals use. The composite integration of all these is very important.
- * Northglenn
Training- packets
- * Lakewood
(regarding more information) Generally would like more information.
- * Wheatridge
Training- Study sessions of planning commission meetings. State and National APA meetings.
- * Northglenn
comments: I only have experience as Realtor and Developer.
- * Greenwood Village
Training- When issues come up, The details are explained to the commission members.
Comments. I Consider Air quality and traffic control very important to vehicular and pedestrian circulation.
- * Northglenn
Training- By practical application and discussion as new cases are brought forward for review.
- * Englewood
Training- Recommendations from staff. Economic conditions restrict any seminar attendance.
- * Greenwood Village
I have been involved for years in various aspects of real estate - pud's and other aspects of land planning as are very familiar with design issues.
Training- City staff members present their opinions concurrently with site design presentations.
comments: In our community, a suburban area located directly south of Denver - a portion of the city is dedicated to the Denver Technology Center-which contributes the majority of the tax dollars to the city and which also employs several thousand people most of who do not live

in the city. Traffic is a primary concern of city residents. - trying to maintain a rural atmosphere in the face of such encroachment is a major problem. Public transportation is almost non-existent. We on the planning and zoning board feel our major focus is the representation of our citizens in allowing only development which will least effect other residents- therefore down zoning is very difficult for developers to obtain. Our community is very fortunate to have the Rocky Mountains as a potential view from each building site. we on the board, try to insure that each new residential building is so placed and built, so that existing or future buildings will not block views. We have less control over the office buildings.

I am delighted that courses might, in the future, be available for those who serve on planning and zoning boards. There is a need. Should you like more details into the problems I have encountered-please call.

*

Lakewood

Training- Knowledge is not passed on. Simply watch learn and listen.

City council - which is not responsive due to having an architect on council who they believe to be expert.

I find site planning an integral part of planning however, the commissioners feel it is not our job to questions the quality of a site plan. I find all of us - especially the architect - has a decided lack of knowledge. Perhaps the architect is protecting his personal interests in his decisions and comments are particularly short sided. Site design and site assessment is a much needed area of attention and usually falls far short of what is required. Somehow we never see the shortcomings until after the project is completed. (For instance tying density to building types in residential projects).

Many people are very reluctant to discuss site planning with a commissioner and when we do ask questions we get incomplete answers and must run the risk of offending city staff, developers, etc, to get what we feel is in the public's best interest. Our city sends 5 regular plus 5 alternative commissioners to the National Planning convention for 5 days every year. In between and smaller seminars have not be tested.

Colorado Planners:

- * Golden
Training- Written documents, orientation meetings interactive "hands on."
Seminar topic could be: How to upwardly influence design expectations in the face of depressed economy and concerns for cost of housing and developer criticisms? "STRATEGIES"
- * Commerce City
Training- Concerns are raised during planning staff meetings, however, in the past there has been more or less a directive from the council to steer sway from evaluations of design. There is now more concern for good design and talk about futher education in this area.
- * Northglenn
Training- Staff meetings
- * Englewood
Every other Tuesday morning we hold a technical review meeting to review new development and redevelopment. The technical review committee addresses site design issues. We do not have architectural guidelines except the uniform building code. The following staff members are on the Technical review committee.
Fire Chief, Utilities Customer Service Manager, Director of Engineering, Director of Public Works, Traffic Engineer, Director of Building and Safety, Director of Community Development, Senior Planner, Planner II, Planner I, City Engineer. and City Surveyor.
Training- Through job experience.
At this time the city's revenues are down. One of the first items cut are training items for the staff.
- * Broomfield
Training- Training Sessions, and policy plan review.
Vehicular circulation - 4 safety;
Pedestrian circulation - 4 safety,
Screening - noise,
Exterior lighting - 4 security;
Open space -3 compatibility; utility routing -2 maintenance.
Off site impacts -1 politics.

- * Westminster
Training- Verbal; and experience in working together (with staff).

Kansas/Missouri Planning Commissioners:

- * Edwardsville
Training- Thru Planning Commission meetings:
I am too busy right now, we are volunteer.
- * Westwood
Training- Verbally
- * Lenexa
Yes, Design Review- Improves quality of development, materials, design, relationships, reduces negative impacts

Training- 1. On the job training.
 2. special planning commission meetings.
 3. occassional seminars.

(Willingness to attend seminar) Depends on content of seminar
Elementary graphic standards considerations for professional design determination and technical review are not planning commission function.
The role of the planning commissioner is to review the product produced by the professional design a reviewed by competent technical reviewers. The technical aspects are too extensive to be treated in more than a superficial manner by any seminar and are properly the subject of professional course curriculum. The education of planning commissioners would more profitably cover the use of planning policy pertaining to the comprehensive plan, land use compatability, land use intensity, design compatibility, factors to determine appropriateness, extent, balance, irrecovable commitments of land uses, and the most creative interfact between developers and planners. Planning is at the minimum damage control and at best enlightened urban design. The damage control aspect can be somewhat quantified (screening engineering segregation if needed) Urban design needs comprehensive plan conceptual systems, with focused design policies

which make more of a commitment than the standard flag, apple pie and motherhood goals and objectives. The statement of these policies and their systematic and consistent implementation is arguably the most powerful tool to achieve high quality development.

Authors note: I find it interesting that contrary to many other commissioners this respondent listed all issues as very important and all design issues a 4 in relation to context. This is due to this individuals education and awareness of how design impacts the quality of a city. This city is lucky to have this commissioner. However, the statement that the commissioner is to review "the product" in terms of land use compatability, appropriateness, extent, design compatibility without the minimum design assessment tools to understand the lands capability to do so is contradictory to the statement that review is not a function of the commission. While the most technical aspects should be left to staff if staff is available, there must be a minimum design proficiency for commissioners. Second, in order to commit to a focused design policy, one must understand to what one is committing.

- * Leawood
Training- Informal sessions after appointment.
eriodic seminars with/by a professional (city architect)
- * Belton
Training- By discussion as the issue arises.
- * Edwardsville
I have 25 years experience with Blackand Veatch
(engineering firm in Kansas City.
Comments: Rate all issues a 5 and contexts a 4.
- * Prairie Village
Training- No organized method; except for
periodicals discussing nationwide cases
- * Raytown
Training- 2 engineers, 5 other professions
Preliminary meetings and at actual planning and
zoning commissions public hearings.

I've served on our planning and zoning commission now for the past 10 years. Most areas in our community are developed and what is occurring is utilization of what previously was disused real estate.

- * Grandview
Training- poorly.
- * Grandview
Training- at meetings
- * Westwood
Training- By word of mouth
Our city of Westwood is too small to pay Planning commissioners, consultants or to pay expenses of commissioners to seminars. Members of the commission are usually selected from residents who have shown an interest in city government and planning and have shown general good common sense in their discussion of city government matters. I've rated all issues a 5 and all contexts a 4.
- * Shawnee
Training- Occassional APA seminars and osmosis. A decent lunch and contacts with other government jurisdictions is a good incentive.
- * Westwood
Training- Word of Mouth - city is too small for adequate staff.
- * Shawnee
Training- On the job training.
- * Olathe
Training- On the job training, reading material and staff assistance.
- * Leawood
Training- via written word and work sessions
- * Independence
Design review is a part of the zoning process. I've noted that with rezoning applicants and developers design issues are always a topic of discussion. With the general public meetings etc. only sometimes.

Training- Through personal discussssion with planning dept. staff, printed material and seminars.

All the items on pages 4 and 5 are very important for evaluating and site development plans and all the elements need to be considered on all site plans.

- * Leawood
Training- none
None of these issues should be public costs only development costs.

- * Shawnee
Training- You are handed a book of zoning regulations and a copy of comprehensive plan.

- * Shawnee
Training- By written comments on each issues prior to planning commission meeting.

- * Prairie Village
Training- By discussion and time on the commission.

- * Edwardsville
Training- A copy of zone ordinance and discussion as new situations arise.
Consultant - City planning submits opinions and a copy to each member and attends the monthly meetings usually to explain the reasons for the recommendations. We are fortunate to have the County Surveyor as a member of the board who is very knowledgeable about industrial developments, drainage problems etc, and is generous to share it with the board.

comments: Edwardsville has a new park- primarily for sports- but with a bicycle and jogging trail at the outside. I have a dream to plant along the borders as many exotic trees as will grow here as can be afforded. - with many specimens to be on private property; where they would plant a distinctive tree not just another silver maple or catalpa or siberian elm.

- * Shawnee
Training- Practical experience

- * Leawood
Training- Hit and miss discussions during work sessions.
- * Raytown
Training- It doesn't happen unless the new members seek out the knowledge on their own.
- * Belton
Training- Criteria are explained on each issue. Each member is then encourage to discuss items which concern them. City staff has more formal training.
- * Belton
Training- Seminar and exposure (experience).
- * Shawnee
Training- By osmosis.
- * Leawood
Training- Occasional seminars and work sessions. Respondent considers safety to be a very important context - for Vehicular circulation, Exterior Lighting, Utility routing. Load Pressures and neighborhood pressures for Open space and Off site impacts respectively.
- * Prairie Village
Comments. I am a comparatively new member of the planning board has served 9 months, and as such I have not been exposed to most of the situations and information you desire. Therefore I am returning your query etc and hope you'll be able to pass it on. I'm sorry for the delay.

Kansas/Missouri Planners:

- * Shawnee
In planning department, site plans also reviewed by Engineering, Police and Fire Depts.
Training- Informal procedures, ordinances and policy info. on the job training.

- * Leawood
Site Design Review is maintaining a high level of quality. It has never been allowed to slip. For staffing to do the review, it is not a question of numbers, it is a question of time. Training- On the job training and sit in on reviews.
- * Olathe
Training- On the job training; reading regulation, reviewing old files and viewing the city.
To attend a seminar it must be more than an introductory seminar.
- * Lenexa
Training- Through meetings, informal discussion and on the job training.
- * Grandview
Training- Through site design guidelines outlined in the zoning ordinances and other regulation. Site plan checklist - site plan guidebook - site plan review procedures.
This would be a very helpful seminar. Our Planning commissioners are very interested in this area. Improving the visual quality of our city is a primary concern. We're always looking for better ideas and I'd be very interested in knowing what other cities have found; that have worked. Our site design guidelines need updating and we are currently trying to do this.

APPENDIX F

STATISTICAL TABLES FOR COMBINED PLANNER / COMMISSIONER RESPONSES

TABLES FOR GENERAL DEMOGRAPHIC PERCENTAGES
'COMBINED DATA'

Urban.....	83.15
Rural.....	7.87
No response.....	8.98
TOTAL PERCENTAGE.....	100
DO YOU HAVE A DESIGN REVIEW PROCESS	
YES.....	89.9
NO.....	10.1
TOTAL PERCENTAGE.....	100
DO YOU HAVE FORMAL TRAINING IN SITE DESIGN	
YES.....	17.98
NO.....	82.02
TOTAL PERCENTAGE.....	100
DO YOU HAVE TRAINING IN SITE DESIGN ASSESSMENT	
YES.....	20.22
NO.....	79.78
TOTAL PERCENTAGE.....	100
MOST KNOWLEGE OF SITE DESIGN LEARNED FROM ON THE JOB TRAINING	
YES.....	89.89
NO.....	6.74
NO RESPONSE.....	3.37
TOTAL PERCENTAGE.....	100

Table F.1 General Demographics

=====	
NUMBER OF COMMISSIONERS OR STAFF THAT ARE ARCHITECTS	

0.....	64.77
1.....	27.27
2.....	7.96

TOTAL PERCENTAGE.....	100
=====	
=====	
NUMBER OF COMMISSIONERS OR STAFF THAT ARE LANDSCAPE ARCHITECTS	

0.....	89.77
1.....	7.97
2.....	1.13
3.....	1.13

TOTAL PERCENTAGE.....	100
=====	
=====	
HOW FREQUENTLY IS SITE DESIGN A TOPIC OF PLANNING MEETINGS	

NEVER.....	0.00
RARELY.....	8.99
SOMETIMES.....	17.98
FREQUENTLY.....	56.18
ALWAYS.....	15.73
NO RESPONSE.....	1.12

TOTAL PERCENTAGE.....	100
=====	
=====	
HOW FREQUENTLY IS SITE DESIGN A TOPIC OF DISCUSSION WITH PUBLIC	

NEVER.....	2.25
RARELY.....	19.07
SOMETIMES.....	43.82
FREQUENTLY.....	29.21
ALWAYS.....	3.40
NO RESPONSE.....	2.25

TOTAL PERCENTAGE.....	100
=====	

Table F.2 General Demographics

HOW COMFORTABLE ARE RESPONDENTS IN DISCUSSING
SITE DESIGN ISSUES WITH THE FOLLOWING GROUPS

=====	
DEVELOPERS	

VERY UNCOMFORTABLE.....	2.25
SOMEWHAT UNCOMFORTABLE.....	8.99
IN BETWEEN.....	16.85
SOMEWHAT COMFORTABLE.....	37.08
VERY COMFORTABLE.....	32.58
NO RESPONSE.....	2.25

TOTAL PERCENTAGE.....	100
=====	
=====	
LANDSCAPE ARCHITECT	

VERY UNCOMFORTABLE.....	2.25
SOMEWHAT UNCOMFORTABLE.....	7.87
IN BETWEEN.....	24.72
SOMEWHAT COMFORTABLE.....	41.57
VERY COMFORTABLE.....	21.35
NO RESPONSE.....	2.24

TOTAL PERCENTAGE.....	100
=====	
=====	
ARCHITECT	

VERY UNCOMFORTABLE.....	2.25
SOMEWHAT UNCOMFORTABLE.....	10.11
IN BETWEEN.....	21.35
SOMEWHAT COMFORTABLE.....	41.57
VERY COMFORTABLE.....	22.47
NO RESPONSE.....	2.25

TOTAL PERCENTAGE.....	100
=====	
=====	
PLANNER	

VERY UNCOMFORTABLE.....	2.25
SOMEWHAT UNCOMFORTABLE.....	4.49
IN BETWEEN.....	19.1
SOMEWHAT COMFORTABLE.....	41.57
VERY COMFORTABLE.....	30.34
NO RESPONSE.....	2.25

TOTAL PERCENTAGE.....	100
=====	

**Table F.3 Comfort Ratings for Discussing
Site Design Issues with other
Professions**

=====	
GENERAL PUBLIC	

VERY UNCOMFORTABLE.....	2.24
SOMEWHAT UNCOMFORTABLE.....	6.74
IN BETWEEN.....	16.85
SOMEWHAT COMFORTABLE.....	35.96
VERY COMFORTABLE.....	35.96
NO RESPONSE.....	2.25

TOTAL PERCENTAGE.....	100
=====	
=====	
OTHER PLANNING BOARD MEMBERS	

VERY UNCOMFORTABLE.....	2.25
SOMEWHAT UNCOMFORTABLE.....	2.24
IN BETWEEN.....	12.36
SOMEWHAT COMFORTABLE.....	34.83
VERY COMFORTABLE.....	46.07
NO RESPONSE.....	2.25

TOTAL PERCENTAGE.....	100
=====	
=====	
ENGINEERS	

VERY UNCOMFORTABLE.....	2.25
SOMEWHAT UNCOMFORTABLE.....	11.24
IN BETWEEN.....	16.85
SOMEWHAT COMFORTABLE.....	41.57
VERY COMFORTABLE.....	25.84
NO RESPONSE.....	2.25

TOTAL PERCENTAGE.....	100
=====	

Table F.3a Continuation of F.3

=====	
HOW RESPONSIVE IS CITY COMMISSION TO RECOMMENDATIONS ABOUT SITE DESIGN REGULATION	

NOT RESPONSIVE.....	2.25
SOMEWHAT UNRESPONSIVE.....	4.5
IN BETWEEN.....	35.96
SOMEWHAT RESPONSIVE.....	33.7
VERY RESPONSIVE.....	20.22
NO RESPONSE.....	3.37

TOTAL PERCENTAGE.....	100
=====	
=====	
DO YOU THINK CONTINUING EDUCATION IN SITE DESIGN WOULD IMPROVE YOUR PERFORMANCE	

LITTLE.....	7.96
SOME.....	23.86
PROBABLY.....	42.04
ABSOLUTELY.....	22.73
NO RESPONSE.....	3.41

TOTAL PERCENTAGE.....	100
=====	
=====	
DOES YOUR CITY ENCOURAGE CONTINUING EDUCATION	

NEVER.....	10.11
RARELY.....	28.09
SOMETIMES.....	28.09
FREQUENTLY.....	20.23
ALWAYS.....	10.11
NO RESPONSE.....	3.37

TOTAL PERCENTAGE.....	100
=====	

**Table F.4 General Perceptions about Design Review
and Education**

TABLE : MEAN RATINGS OF MISCELLANEOUS DEPENDENT VARIABLES: KANSAS CITY vs DENVER

MEAN RESPONSES FOR MISCELLANEOUS DEPENDENT VARIABLES	N	Colorado Mean	Std. Dev.	t	p	Kansas Missouri Mean	Std. Dev.	t	p
1 Population	46	39.78	29.55	2.567	0.01	25.00	21.60	2.567	0.01
2 Present Job	49	3.69	3.52	-1.826	0.07	5.10	3.52	-1.826	0.07
3 Past Experience (in years)	49	8.48	9.59	0.713	0.47	7.20	3.89	0.713	0.49
4 Site Des. Topic of Meeting	49	3.71	0.84	-1.493	0.15	4.00	6.46	-1.493	0.13
5 Site Des. Topic with Public	49	3.18	1.13	-0.642	0.52	3.35	1.12	-0.642	0.52
6 Conversing with Developers	49	3.98	1.34	-0.348	0.72	4.07	1.31	-0.348	0.72
7 Conversing with Landscape Architect	49	3.84	1.26	-0.144	0.88	3.87	1.20	-0.144	0.88
8 Conversing with Architect	49	3.80	1.30	-0.476	0.63	3.92	1.22	-0.476	0.63
9 Conversing with Planner	49	4.08	1.27	0.122	0.90	4.05	1.22	0.122	0.90
10 Conversing with General Public	49	4.08	1.30	-0.161	0.87	4.08	1.13	-0.161	0.87
11 Conversing with Planning Bd. Member	49	4.27	1.27	-0.645	0.51	4.42	1.20	-0.645	0.52
12 Conversing with Engineer	49	3.94	1.34	0.231	0.81	3.87	1.22	0.231	0.81
13 Recommendations accepted by Commiss	49	3.82	1.43	-0.292	0.76	3.90	1.21	-0.292	0.77
14 Planner Commissioner Performance	49	3.86	0.86	-1.010	0.31	4.15	1.65	-1.010	0.28
15 Seminar Expense	49	4.41	3.63	-0.523	0.60	4.82	3.85	-0.523	0.60
16 Cities Encouraging Continuing Ed.	49	3.02	1.08	-0.858	0.39	3.32	2.00	-0.858	0.36
17 Cities Paying for Travel	49	0.53	0.50	-0.184	0.85	0.57	1.44	-0.184	0.84
18 Cities Paying for Course	49	0.69	0.46	-1.242	0.22	0.97	1.36	-1.242	0.18

Table F.5 Mean Ratings and t-scores for
Miscellaneous Dependent Variables

TABLE : MEAN RATINGS OF MISCELLANEDUS DEPENDENT VARIABLES: DENVER

MEAN RESPONSES FOR MISCELLANEDUS DEPENDENT VARIABLES	N	Colorado Mean	Std. Dev.
1 Population	46	39.78	29.55
2 Past Experience (in years)	49	8.48	9.59
3 Seminar Expense	49	4.41	3.63
4 Conversing with Planning Bd. Member	49	4.27	1.27
5 Conversing with General Public	49	4.08	1.30
6 Conversing with Planner	49	4.08	1.27
7 Conversing with Developers	49	3.98	1.34
8 Conversing with Engineer	49	3.94	1.34
9 Planner Commissioner Performance	49	3.86	0.86
10 Conversing with Landscape Architect	49	3.84	1.26
11 Recommendations accepted by Commissi	49	3.82	1.43
12 Conversing with Architect	49	3.80	1.30
13 Site Des. Topic of Meeting	49	3.71	0.84
14 Present Job	49	3.69	3.52
15 Site Des. Topic with Public	49	3.18	1.13
16 Cities Encouraging Continuing Ed.	49	3.02	1.08
17 Cities Paying for Course	49	0.69	0.46
18 Cities Paying for Travel	49	0.53	0.50

**Table F.5a Miscellaneous Dependent Variables in
Denver Area (Sorted in Descending Order
by Mean Scores)**

TABLE : MEAN RATINGS OF MISCELLANEOUS DEPENDENT VARIABLES: KANSAS CITY

=====				
MEAN RESPONSES FOR MISCELLANEOUS	:	:	KANSAS	:
DEPENDENT VARIABLES	:	N	MISSOURI	Std.
	:	:	Mean	Dev.

1 Population	:	38	25.00	21.60
2 Past Experience (in years)	:	38	7.20	3.89
3 Present Job	:	40	5.10	3.52
4 Seminar Expense	:	40	4.82	3.85
5 Conversing with Planning Bd. Member	:	40	4.42	1.20
6 Planner Commissioner Performance	:	40	4.15	1.65
7 Conversing with General Public	:	40	4.08	1.13
8 Conversing with Developers	:	40	4.07	1.31
9 Conversing with Planner	:	40	4.05	1.22
10 Site Des. Topic of Meeting	:	40	4.00	6.46
11 Conversing with Architect	:	40	3.92	1.22
12 Recommendations accepted by Commiss	:	40	3.90	1.21
13 Conversing with Engineer	:	40	3.87	1.22
14 Conversing with Landscape Architect	:	40	3.87	1.20
15 Site Des. Topic with Public	:	40	3.35	1.12
16 Cities Encouraging Continuing Ed.	:	40	3.32	2.00
17 Cities Paying for Course	:	40	0.97	1.36
18 Cities Paying for Travel	:	40	0.57	1.44
=====				

Table F.5b Miscellaneous Dependent Variables in
Kansas City Area (Sorted in Descending
Order by Mean Scores)

TABLE : RATING OF MISCELLANEOUS DEPENDENT VARIABLES SORTED IN DESCENDING ORDER BY MEAN SCORES

DENVER	MEAN SCORE	Kansas City	MEAN SCORE
1 Population	39.78	1 Population	25.00
2 Past Experience (in years)	8.48	2 Past Experience (in years)	7.20
3 Seminar Expense	4.41	3 Present Job	5.10
4 Conversing with Planning Bd. Member	4.27	4 Seminar Expense	4.82
5 Conversing with General Public	4.08	5 Conversing with Planning Bd. Member	4.42
6 Conversing with Planner	4.08	6 Planner Commissioner Performance	4.15
7 Conversing with Developers	3.98	7 Conversing with General Public	4.08
8 Conversing with Engineer	3.94	8 Conversing with Developers	4.07
9 Planner Commissioner Performance	3.86	9 Conversing with Planner	4.05
10 Conversing with Landscape Architect	3.84	10 Site Des. Topic of Meeting	4.00
11 Recommendations accepted by Commiss	3.82	11 Conversing with Architect	3.92
12 Conversing with Architect	3.80	12 Recommendations accepted by Commiss	3.90
13 Site Des. Topic of Meeting	3.71	13 Conversing with Engineer	3.87
14 Present Job	3.69	14 Conversing with Landscape Architect	3.87
15 Site Des. Topic with Public	3.18	15 Site Des. Topic with Public	3.35
16 Cities Encouraging Continuing Ed.	3.02	16 Cities Encouraging Continuing Ed.	3.32
17 Cities Paying for Course	0.69	17 Cities Paying for Course	0.97
18 Cities Paying for Travel	0.53	18 Cities Paying for Travel	0.57

Table F.5c Table for Comparing Denver and Kansas City Responses to Miscellaneous Dependent Variables

TABLE : RATINGS OF IMPORTANCE OF SITE DESIGN ISSUES: Kansas City vs Denver

STATISTICAL VALUES SHOWING DIFFERENCES IN IMPORTANCE OF SITE DESIGN ISSUES: KANSAS CITY VS DENVER:	N	Colorado Mean	Std. Dev.	t	p	N	Kansas/ Missouri Mean	Std. Dev.	t	p
1 Access to Site	49	4.57	0.61	-0.589	0.55	37	4.64	0.58	-0.589	0.55
2 Sightline Distances	49	4.08	0.81	-0.021	0.98	35	4.08	0.95	-0.021	0.98
3 Turning Radius	49	3.89	0.89	-0.924	0.36	36	4.08	0.93	-0.924	0.35
4 Dropoff and Loading Zone	49	3.46	1.02	-0.744	0.46	37	3.64	1.20	-0.744	0.45
5 Off Street Parking	49	4.30	0.82	-0.834	0.38	36	4.44	0.65	-0.834	0.40
6 Service Access	49	3.59	1.05	-1.492	0.14	37	3.94	1.12	-1.492	0.13
7 Handicapped Access	49	3.91	0.90	-0.887	0.39	36	4.11	1.08	-0.887	0.37
8 Walkway Adequacy	49	3.75	0.96	0.267	0.79	36	3.69	1.11	0.267	0.78
9 Walkway Routing	49	3.71	1.00	-0.277	0.78	36	3.77	1.09	-0.277	0.78
10 Structural Screening	49	4.14	0.67	-0.118	0.90	37	4.16	0.83	-0.118	0.90
11 Vegetative Screening	49	4.22	0.79	-0.590	0.55	37	4.32	0.74	-0.590	0.55
12 Existing Vegetation	49	3.81	0.95	-1.418	0.15	37	4.10	0.93	-1.418	0.15
13 Functional Use Vegetation	49	3.81	0.83	-0.517	0.61	35	3.91	0.88	-0.517	0.60
14 Placement of New Veg	49	4.12	0.78	-0.511	0.61	37	4.21	0.91	-0.511	0.61
15 Visualizing Landform	47	3.97	0.92	-0.980	0.32	35	4.17	0.82	-0.980	0.32
16 Understanding Drainage	47	4.29	0.80	-1.366	0.18	36	4.55	0.90	-1.366	0.17
17 Slope Gradients	47	3.89	0.91	0.298	0.76	36	3.83	0.91	0.298	0.76
18 Earthwork -Erosion	47	3.63	1.09	-1.122	0.26	36	3.91	1.15	-1.122	0.26
19 Earthwork -Visual Impact	46	4.04	0.81	0.887	0.39	36	3.86	1.04	0.887	0.37
20 Earthwork -Design Grading	46	3.78	0.89	0.759	0.46	36	3.61	1.15	0.759	0.44
21 Lighting Characteristics	47	3.42	0.97	-1.280	0.21	36	3.72	1.13	-1.280	0.20
22 Lighting Security	47	3.38	1.11	-0.668	0.51	36	3.55	1.22	-0.668	0.50
23 Open Space Types	47	4.31	0.78	0.429	0.66	33	4.24	0.79	0.429	0.66
24 Open Space Placement	47	4.08	0.95	-0.743	0.45	33	4.24	0.90	-0.743	0.45

Table F.6 Importance Ratings and t-scores for Design Issues as they appear on the questionnaire

25 Electric	46	3.55	1.17			36	3.55				
26 Water	46	3.34	1.15	-1.132	0.25	36	3.63	1.12	-1.132	0.26	
27 Sewer	46	3.32	1.22	-1.988	0.05	36	3.83	1.13	-1.988	0.05	
28 Gas	46	2.97	1.21	-2.343	0.02	36	3.58	1.07	-2.343	0.02	
29 Phone	46	3.04	1.21	-1.517	0.13	36	3.44	1.15	-1.517	0.13	
30 Future Communications	46	3.04	1.15	-1.388	0.17	36	3.41	1.27	-1.388	0.16	
31 Off Site Impacts	46	3.84	0.96	0.486	0.64	33	3.96	1.26	0.486	0.62	
32 Relating Building to Site	39	4.53	0.78	-0.582	0.54	28	4.64	0.62	-0.582	0.56	
33 Building Height	47	4.19	0.90	-0.664	0.49	35	4.31	0.71	-0.664	0.50	
34 Energy Efficiency	47	3.44	1.17	-0.148	0.88	35	3.48	1.17	-0.148	0.88	
35 Relating to Existing Buildings	47	4.21	0.90	-0.613	0.53	36	4.33	0.86	-0.613	0.54	

Table F.6 (continued)

TABLE : RATINGS OF IMPORTANCE OF SITE DESIGN ISSUES: DENVER

=====				
DIFFERENCES IN IMPORTANCE OF SITE	N	Colorado		
DESIGN ISSUES: SORTED BY MEAN		Mean	Std.	
RESPONSES IN DESCENDING ORDER			Dev.	
=====				
1 Access to Site	39	4.57	0.61	
2 Relating Building to Site	39	4.53	0.78	
3 Open Space Types	47	4.31	0.78	
4 Off Street Parking	49	4.30	0.82	
5 Understanding Drainage	47	4.29	0.80	
6 Vegetative Screening	49	4.22	0.79	
7 Relating to Existing Buildings	47	4.21	0.90	
8 Building Height	47	4.19	0.90	
9 Structural Screening	49	4.14	0.67	
10 Placement of New Veg	49	4.12	0.78	
11 Open Space Placement	47	4.08	0.95	
12 Sightline Distances	49	4.08	0.81	
13 Earthwork -Visual Impact	46	4.04	0.81	
14 Visualizing Landform	47	3.97	0.92	
15 Handicapped Access	49	3.91	0.90	
16 Slope Gradients	47	3.89	0.91	
17 Turning Radius	49	3.89	0.89	
18 Off Site Impacts	46	3.84	0.96	
19 Functional Use Vegetation	49	3.81	0.83	
20 Existing Vegetation	49	3.81	0.95	
21 Earthwork -Design Grading	46	3.78	0.89	
22 Walkway Adequacy	49	3.75	0.96	
23 Walkway Routing	49	3.71	1.00	
24 Earthwork -Erosion	47	3.63	1.09	
25 Service Access	49	3.59	1.05	
26 Electric	46	3.55	1.17	
27 Dropoff and Loading Zone	49	3.46	1.02	
28 Energy Efficiency	47	3.44	1.17	
29 Lighting Characteristics	47	3.42	0.97	
30 Lighting Security	47	3.38	1.11	
31 Water	46	3.34	1.15	
32 Sewer	46	3.32	1.22	
33 Future Communications	46	3.04	1.15	
34 Phone	46	3.04	1.21	
35 Gas	46	2.97	1.21	
=====				

Table F.6a Importance Ratings of Site Design Issues by Denver Respondents Sorted by Mean Scores

TABLE : RATINGS OF IMPORTANCE OF SITE DESIGN ISSUES: KANSAS CITY

=====				
DIFFERENCES IN IMPORTANCE OF SITE	N	Kansas/		
DESIGN ISSUES: SORTED BY MEAN		Missouri	Std.	
RESPONSES IN DESCENDING ORDER		Mean	Dev.	
=====				
1 Relating Building to Site	28	4.64	0.62	
2 Access to Site	37	4.64	0.58	
3 Understanding Drainage	36	4.55	0.90	
4 Off Street Parking	36	4.44	0.65	
5 Relating to Existing Buildings	36	4.33	0.86	
6 Vegetative Screening	37	4.32	0.74	
7 Building Height	35	4.31	0.71	
8 Open Space Types	33	4.24	0.79	
9 Open Space Placement	33	4.24	0.90	
10 Placement of New Veg	37	4.21	0.91	
11 Visualizing Landform	35	4.17	0.82	
12 Structural Screening	37	4.16	0.83	
13 Handicapped Access	36	4.11	1.08	
14 Existing Vegetation	37	4.10	0.93	
15 Turning Radius	36	4.08	0.93	
16 Sightline Distances	35	4.08	0.95	
17 Off Site Impacts	33	3.96	1.26	
18 Service Access	37	3.94	1.12	
19 Earthwork -Erosion	36	3.91	1.15	
20 Functional Use Vegetation	35	3.91	0.88	
21 Earthwork -Visual Impact	36	3.86	1.04	
22 Slope Gradients	36	3.83	0.91	
23 Sewer	36	3.83	1.13	
24 Walkway Routing	36	3.77	1.09	
25 Lighting Characteristics	36	3.72	1.13	
26 Walkway Adequacy	36	3.69	1.11	
27 Dropoff and Loading Zone	37	3.64	1.20	
28 Water	36	3.63	1.12	
29 Earthwork -Design Grading	36	3.61	1.15	
30 Gas	36	3.58	1.07	
31 Electric	36	3.55		
32 Lighting Security	36	3.55	1.22	
33 Energy Efficiency	35	3.48	1.17	
34 Phone	36	3.44	1.15	
35 Future Communications	36	3.41	1.27	
=====				

Table F.6b Importance Ratings of Site Design Issues by Kansas City Respondents Sorted by Mean Scores

TABLE : RATINGS OF IMPORTANCE OF SITE DESIGN CATEGORIES: Kansas City vs Denver

STATISTICAL VALUES SHOWING DIFFERENCES IN IMPORTANCE OF SITE DESIGN CATEGORIES: KC vs DENVER	N	Colorado	Mean	Std. Dev.	t	p	Kansas	Missouri	Mean	Std. Dev.	t	p
1 Vehicular Circulation	49	3.98	3.98	0.60	-0.827	0.42	4.10	3.86	4.10	0.67	-0.827	0.41
2 Pedestrian Circulation	49	3.79	3.79	0.84	-0.319	0.75	3.86	3.86	3.86	0.84	-0.319	0.75
3 Screening	49	4.02	4.02	0.68	-0.828	0.40	4.14	4.14	4.14	0.68	-0.828	0.40
4 Earthwork	46	3.92	3.92	0.72	-0.482	0.63	4.00	4.00	4.00	0.72	-0.482	0.63
5 Lighting	47	3.40	3.40	0.99	-1.012	0.32	3.63	3.63	3.63	0.99	-1.012	0.31
6 Open Space	47	4.20	4.20	0.78	-0.224	0.82	4.24	4.24	4.24	0.78	-0.224	0.82
7 Utility	46	3.13	3.13	1.09	-1.849	0.06	3.57	3.57	3.57	1.09	-1.849	0.06
8 Off Site Impact	46	3.84	3.84	0.96	-0.486	0.62	3.96	3.96	3.96	0.96	-0.486	0.62
9 Bldg to site relation	39	4.16	4.16	0.77	-0.897	0.35	4.32	4.32	4.32	0.77	-0.897	0.37

Table F.7 Importance Ratings and t-scores for
Site Design Categories as they appear
on the questionnaire

TABLE : RATINGS OF IMPORTANCE OF SITE DESIGN CATEGORIES: DENVER

=====				
DIFFERENCES IN IMPORTANCE OF SITE	:	:	:	:
DESIGN CATEGORIES: SORTED BY	:	N	Colorado	Std.
MEAN RESPONSES IN DESCENDING ORDER	:	:	Mean	Dev.

1 Open Space	:	47	4.20	0.78
2 Bldg to site relation	:	39	4.16	0.77
3 Screening	:	49	4.02	0.68
4 Vehicular Circulation	:	49	3.98	0.60
5 Earthwork	:	46	3.92	0.72
6 Off Site Impact	:	46	3.84	0.96
7 Pedestrian Circulation	:	49	3.79	0.84
8 Lighting	:	47	3.40	0.99
9 Utility	:	46	3.13	1.09
=====				

**Table F.7a Importance Ratings and t-scores for
Site Design Categories in Denver area
Sorted by Mean Scores**

TABLE : RATINGS OF IMPORTANCE OF SITE DESIGN CATEGORIES: KANSAS CITY

=====				
DIFFERENCES IN IMPORTANCE OF SITE	:	:	KANSAS	:
DESIGN CATEGORIES: SORTED BY	:	N	MISSOURI	Std.
MEAN RESPONSES IN DESCENDING ORDER	:	:	Mean	Dev.

1 Bldg to site relation	:	27	4.32	0.77
2 Open Space	:	33	4.24	0.78
3 Screening	:	35	4.14	0.68
4 Vehicular Circulation	:	34	4.10	0.67
5 Earthwork	:	35	4.00	0.72
6 Off Site Impact	:	33	3.96	0.96
7 Pedestrian Circulation	:	36	3.86	0.84
8 Lighting	:	36	3.63	0.99
9 Utility	:	36	3.57	1.09
=====				

**Table F.7b Importance Ratings and t-scores for
Site Design Categories in Kansas City
Area Sorted by Mean Scores**

RESPONDENTS NEED MORE INFORMATION ON THESE SITE DESIGN ISSUES	YES	NO	NO RESPONSE	RESPONDENTS DO NOT NEED MORE INFORMATION ON THESE SITE DESIGN ISSUES	YES	NO	NO RESPONSE
HANDICAPPED ACCESS	46.6	44.8	8.6	***	38.7	54.4	6.9
WALKWAY ADEQUACY	47.4	43.9	8.8	***	41.4	51.7	6.9
WALKWAY ROUTES	53.5	37.9	8.6	***	34.0	59.3	6.7
STRUCTURAL SCREENING	56.4	36.4	7.3	***	43.1	50.0	6.9
VEGETATIVE SCREENING	56.1	38.6	5.3	***	44.8	46.5	8.6
EXISTING VEGETATION	50.9	43.6	5.5	***	41.1	50.9	7.0
FUNCTION USES							
OF VEGETATION							
PLACING NEW	63.3	28.3	8.3	***	36.4	52.7	10.9
VEGETATION							
	62.5	32.1	5.4	***	30.9	58.2	10.9
VISUALIZING LANDFORM	63.9	26.2	9.8	***	32.7	56.4	10.9
UNDERSTAND DRAINAGE	58.6	31.0	10.4	***	32.7	56.4	10.9
UNDERSTANDING SLOPE	50.8	37.3	11.9	***	32.7	56.4	10.9
EARTHWORK					30.9	58.2	10.9
(EROSION)	55.2	34.4	10.4	***			
(VISUAL IMPACT)	56.9	32.8	10.3	***	38.9	50.0	11.1
(DESIGN GRADING)	54.4	35.1	10.5	***			
LIGHTING							
CHARACTERISTICS	46.4	42.9	10.7	***			
OPEN SPACE							
(TYPES)	50.0	35.0	15.0	***			
(PLACEMENT)	51.7	33.3	15.0	***			
OFF SITE IMPACTS	61.3	24.2	14.5	***			
BUILDING TO SITE							
RELATIONSHIPS	56.3	15.6	28.1	***			
BUILDING HEIGHT	49.1	38.2	12.7	***			
ENERGY EFFICIENCY	49.1	38.6	12.3	***			
EXISTING BUILDINGS	60.7	28.6	10.7	***			

Table F.8 Response Frequencies for Information on Site Design Issues

RESPONSE PERCENTAGES FOR EACH SITE DESIGN ISSUE

VEHICULAR CIRCULATION	ACCESS TO SITE	SIGHTLINE DISTANCES	TURNING RADIUS	DROPOFF AND LOAD ZONE	OFF STREET PARKING	SERVICE ACCESS
NOT IMPORTANT						
HARDLY IMPORTANT						
SOMEWAT IMPORTANT		20.46	26.44	14.61		7.96
IMPORTANT	27.59	34.09	31.03	31.46	7.87	26.14
VERY IMPORTANT	65.52	36.36	34.49	22.47	35.96	29.55
NO RESPONSE	6.89	9.09	8.04	24.72	48.31	29.55
TOTAL PERCENTAGE	100	100	100	6.74	7.86	6.8
				100	100	100
IS MORE INFORMATION NEEDED						
NO	54.4	51.72	59.32	50	46.55	50.88
YES	38.7	41.38	33.98	43.1	44.83	42.1
NO RESP	6.9	6.9	6.7	6.9	8.62	7.02
TOTAL PERCENTAGE	100	100	100	100	100	100

Table F.8a Frequencies for Importance Ratings and Perceived Need for More Information for Each Site Design Issue

PEDESTRIAN	WALKWAY	WALKWAY	WALKWAY
CIRCULATION	ACCESS	ADEQUACY	ROUTES
NOT IMPORTANT			
HARDLY IMPORTANT	5.55	6.74	7.86
SOMEWHAT IMPORTANT	21.11	31.46	28.09
IMPORTANT	28.89	26.97	29.21
VERY IMPORTANT	36.67	26.97	26.97
NO RESPONSE	7.78	7.86	7.87
TOTAL PERCENTAGE	100	100	100
IS MORE INFORMATION NEEDED			
NO	44.83	43.86	37.93
YES	46.56	47.37	53.45
NO RESP	8.61	8.77	8.62
TOTAL PERCENTAGE	100	100	100

Table F.8 (continued)

SCREENING	STRUCTURAL SCREENING	VEGETATIVE SCREENING	EXISTING VEGETATION	FUNCTIONAL USE OF VEGETATION	PLACING NEW VEGETATION
NOT IMPORTANT					
HARDLY IMPORTANT			4.44	4.4	
SOMEWHAT IMPORTANT	13.48	9.09	25.56	27.47	17.04
IMPORTANT	47.19	42.04	32.22	37.36	37.5
VERY IMPORTANT	32.58	42.05	32.22	23.08	39.78
NO RESPONSE	6.75	6.82	5.56	7.69	5.68
TOTAL PERCENTAGE	100	100	100	100	100
IS MORE INFORMATION NEEDED					
NO	36.36	38.6	43.64	28.33	32.14
YES	56.36	56.14	50.9	63.34	62.5
NO RESP	7.28	5.26	5.46	8.33	5.36
TOTAL PERCENTAGE	100	100	100	100	100

Table F.8 (continued)

EARTHWORK	!VISUALIZING	!UNDERSTANDING	!UNDERSTANDING	!EARTHWORK	!EARTHWORK	!DESIGN
	!LANDFORMS	!DRAINAGE	!SLOPE	!(EROSION)	!(VISUAL IMPACT)	!GRADING
NOT IMPORTANT						
HARDLY IMPORTANT	6.1	3.33	3.33	11.37	6.67	10.11
SOMEWHAT IMPORTANT	17.07	5.56	27.78	18.18	13.33	20.22
IMPORTANT	41.46	28.89	34.44	32.96	43.33	39.34
VERY IMPORTANT	35.37	53.33	25.56	28.4	26.67	20.22
NO RESPONSE		8.89	8.89	9.09	10	10.11
TOTAL PERCENTAGE	100	100	100	100	100	100
IS MORE INFORMATION NEEDED						
NO	26.23	31.03	37.29	34.48	32.76	35.09
YES	63.94	58.62	50.84	55.17	56.9	54.39
NO RESP	9.83	10.35	11.87	10.35	10.34	10.52
TOTAL PERCENTAGE	100	100	100	100	100	100

Table F.8 (continued)

=====			
LIGHTING	!LIGHTING	!SECURITY	!PLACEMENT OF
	!CHARACTERISTICS	!LIGHTING	!OPEN SPACE
NOT IMPORTANT			
HARDLY IMPORTANT	6.9	11.63	2.2
SOMEWHAT IMPORTANT	34.48	34.88	2.2
IMPORTANT	29.89	20.93	10.99
VERY IMPORTANT	19.54	23.26	34.07
NO RESPONSE	9.19	9.3	40.66
TOTAL PERCENTAGE	100	100	12.08
			100

IS MORE INFORMATION			
NEEDED			
NO	42.86	52.73	35
YES	46.43	36.36	50
NO RESP	10.71	10.91	15
TOTAL PERCENTAGE	100	100	100
=====			
=====			
OPEN SPACE	!TYPES OF	!PLACEMENT OF	
	!OPEN SPACE	!OPEN SPACE	
NOT IMPORTANT			
HARDLY IMPORTANT	2.2	2.2	
SOMEWHAT IMPORTANT	10.99	12.09	
IMPORTANT	34.07	35.17	
VERY IMPORTANT	40.66	36.26	
NO RESPONSE	12.08	12.08	
TOTAL PERCENTAGE	100	100	

IS MORE INFORMATION			
NEEDED			
NO	35	33.33	
YES	50	51.67	
NO RESP	15	15	
TOTAL PERCENTAGE	100	100	
=====			

Table F.8 (continued)

UTILITIES	ELECTRIC	WATER	SEWER	GAS	PHONE	FUTURE COMMUNICATIONS
NOT IMPORTANT	7.32	4.88	4.88	7.32	8.54	8.54
HARDLY IMPORTANT	15.86	14.63	13.41	18.29	17.07	18.29
SOMEWHAT IMPORTANT	40.24	32.93	30.49	37.81	37.81	37.81
IMPORTANT	14.63	23.17	24.39	15.85	17.07	14.63
VERY IMPORTANT	21.95	24.39	26.83	20.73	19.51	20.73
NO RESPONSE						
TOTAL PERCENTAGE	100	100	100	100	100	100

IS MORE INFORMATION
NEEDED

NO	58.18	56.36	56.36	56.36	58.18	50
YES	30.91	32.73	32.73	32.73	30.91	38.89
NO RESP	10.91	10.91	10.91	10.91	10.91	11.11
TOTAL PERCENTAGE	100	100	100	100	100	100

Table F.8 (continued)

SITE TO BUILDING RELATIONSHIPS	OFF SITE IMPACTS	RELATING SITE TO BUILDING	HEIGHT OF BUILDING	ENERGY EFFICIENCY	RELATING TO EXISTING BLDGS
NOT IMPORTANT	3.3				
HARDLY IMPORTANT	5.5	1.1	1.11	18.18	3.33
SOMEWHAT IMPORTANT	19.78	3.3	12.22	26.14	10
IMPORTANT	26.37	19.78	36.67	22.73	33.33
VERY IMPORTANT	31.87	49.45	40	22.73	44.44
NO RESPONSE	13.18	26.37	10	22.73	8.9
TOTAL PERCENTAGE	100	100	100	10.22	100
IS MORE INFORMATION NEEDED					
NO	24.19	15.63	38.18	38.6	28.57
YES	61.29	56.25	49.09	49.12	60.72
NO RESP	14.52	28.12	12.73	12.28	10.71
TOTAL PERCENTAGE	100	100	100	100	100

Table F.8 (continued)

PLANNER AND PLANNING COMMISSIONER PERCEPTIONS
CONCERNING THE IMPORTANCE
OF SITE DESIGN ISSUES IN DECISION-MAKING
IN METROPOLITAN DENVER AND KANSAS CITY

BY

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AN ABSTRACT OF A MASTER'S THESIS

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ABSTRACT

The purpose of this study was to assess whether site design issues were an important subject for developing continuing education seminars for planners and planning commissioners and if the content of that seminar had to be tailored to the needs of individual cities.

This research was conducted as a pilot study to determine whether planner and planning commissioner perceptions about the importance of issues in site design significantly differed between the Kansas City and Denver Metropolitan Areas. Respondents were also asked to assess whether they perceived a need for more information on each issue than they now receive.

A survey was mailed to planners and planning commissioners in forty (40) communities in the Denver and Kansas City Metropolitan areas. Each respondent was asked to rate each of thirty-five (35) site design issues on its importance in the community and whether they perceived a need for further education on that issue. The issues tested were gathered from existing model ordinances, site plan checklists and books on site design standards.

The results suggest that there is little significant difference between the Kansas City and Denver metropolitan areas with only one response to the utility "gas" varying

significantly. When the specific issue responses were grouped into general site design categories, there were no significant differences in the average response indicating there is a broader base for marketing a site design seminar than on an "as per request basis".

There were also no significant differences between the two metropolitan areas on the perceived need for more information in each of the design issues tested, however, the consensus for non-technically oriented and visual perception information was desired. Respondent groups desired more information in the following categories

Screening	Earthwork
Open Space	Off-Site Impacts
Pedestrian Circulation	Building to Site Relationships

Respondent groups did not desire more information on vehicular circulation, utilities, or security lighting.

The selection of context preferences for this information which were public costs and benefits, aesthetics and ecology, showed no significant differences between Denver and Kansas City.

Importance ratings for each design issue showed no correlation with questions concerning the number of years past experience in planning, how frequently site design issues were a topic of discussion at planning meetings or how large the local municipal population.

